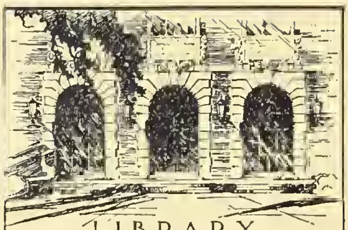

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BULLETIN

- of the -

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Dr. James G. Cooper.

BULLETIN

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COOPER ORNITHOLOGICAL CLUB.

A Bi-monthly Exponent of Californian Ornithology.

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Dr. JAMES G. COOPER.

A SKETCH.

[By W. O. Emerson, President of the Cooper Ornithological Club.]

IT is proper, and in accordance with the wish of the Club, that the initial number of the Bulletin should contain a brief sketch of the life of him, in whose honor our Club is named,—Dr. James G. Cooper.

The fact that Dr. Cooper, though very feeble, is yet alive, precludes us from entering upon any detailed view of his private life, even though it be that phase with which his friends most delight. We must, therefore, confine ourselves to the scientific aspect of his life, as it is in this relation that he is best known to thousands who have never met him, and who will be pained to learn that it is almost impossible for him to receive visitors, as it is difficult and painful for him to speak.

When it became necessary for us to visit him to verify certain portions of this sketch, we noticed his evident pleasure when he learned that the Club intended to publish its own Bulletin, and he expressed the wish to do all that he could to further its interests. To us this meeting was at once a promise and a benediction. For many years he had been to us a friend and a guide, and necessarily our mind reverted to the time when we learned of bird-life at his feet. As we looked on his kindly face and listened to the almost inarticulate words, in memory we traveled backward to the time of our first lesson in bird-life; he sitting on a rock in the shadow of the trees, and the student watching the birds which he noted as they flew about us or jumped from stone to stone, making the air vibrate with their music.

Eighteen years ago! What a vista of time is here unrolled. What changes this period has wrought, yet in memory he is again giving his first field lesson, taking the Rock Wren for an object study as it sits on a huge blue-gray rock singing to us its song of welcome. Here he talked to us of Nature in all of her varied forms; told of the birds, their songs, their flights, plumage and their home-life; of their loves and hates, joys and sorrows! All of this was told in common language, without scientific nomenclature, and thus we saw Nature and her works through the eyes of one who loved and had long questioned and learned many of her secrets, until the setting sun found us yet worshiping in Nature's temple, and the student gaining his first glimpse into that grand arcana. This was our teacher's manner; thus he gathered around him the young ornithologists and in the field taught them the lessons of bird-life, and it was from the incentives of these field studies that our Club was formed, and in his honor named, and at the Club meeting held December 5, 1896, he was by unanimous vote placed on our roll as an Honorary Life Member.

The Secretary of the Club, Mr. C. Barlow, fully expressed the sentiments of all when, in advising Dr. Cooper of the action, he wrote: "The Club which was named in your honor was organized June 22, 1893. * * * As an organization of comparatively young workers, we all feel indebted to yourself and the few remaining veteran ornithologists for the excellent and valuable material which you have prepared in the years past."

James G. Cooper was born June 19, 1830, in New York, being the eldest of a family of six children. In the spring of 1837, his father, Wil-

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liam Cooper, moved to New Jersey and settled at Slongha, near Hoboken, where James commenced his school life, but it was not until he was ten years of age that his school life really began, as prior to this time he was subject to many and severe spells of illness. As he was obliged to walk a mile or more through the fields, he took many of the side paths for the purpose of hunting birds, shells, snakes and other objects of natural history, thus early showing the tendency which has marked his later years. During this period and the succeeding years, he was largely indebted to his father for his education and real preparation for his after career. It may be proper that we devote a few words to the father who exerted so great an influence in the son.

His father, William Cooper, was born in the year 1798, and was the son of James Cooper, an English merchant, who, coming to New York shortly after the Revolutionary War, accumulated a comfortable fortune, and died in 1801. William gave up all ideas of business and devoted his life to the study of Nature, inheriting these tastes from his mother, who was Miss Frances Graham. At the age of nineteen William Cooper united with a number of others and established the Lyceum of Natural History of New York, which became the school of many of our noted scientists. Senator Samuel L. Mitchell, M. D., was the first President, who with Cooper laid the foundation of its magnificent museum. Nathaniel Paulding, the poet, was its first Secretary, and William Cooper was Secretary in 1818 when it was incorporated. For many years Dr. John Torrey, who was the educator of many of our noted botanists, was the curator of the museum, and the intimate personal friend of Mr. Cooper, and to him Dr. Torrey dedicated his first real botanical work, *The Botany of the Northern and Middle States*. At this time Prof. Eaton was, under the direction of Courtland Van Rensselaer, making geological surveys. These old records of the Lyceum, which are before us as we write, vividly recall the early struggling days of science in the United States. What a list of scientific workers, do these old files of proceedings recall. Mark the time, 1818 to 1854.

In 1821 William Cooper departed for Europe in order to perfect himself in zoology, and was the first American member of the Zoological Society of London. He attended the lectures of Cuvier and those master minds of the Jardin des Plantes, and on his return to the United States took up the study of Palæontology, being among the first in our country to engage in this science. He became the warm friend of Schoolcraft who afterwards made for himself a name as a historian of the Indian races. William Cooper was the friend, correspondent and co-laborer of Lucian Bonaparte, and edited the last two volumes of Bonaparte's works, who showed his appreciation of the assistance by dedicating to Cooper one of the finest of his new species, *Falco cooperi*, the type specimen of which was shot by Cooper in Hudson County, N. Y. and, another type specimen, *Ætodrormus cooperi*, was also taken by him, and it is unique in the fact that no second specimen has been secured. The result of William Cooper's ornithological work is largely incorporated in Bonaparte's works. He was the friend of Audubon, and Nuttall, and gave them the use of his specimens and notes, and assisted them in their works. He died April 20, 1864, and at this time, he and his life long friend, John Torrey, were the only surviving members of the original Lyceum, Mr. Cooper having been a member forty-seven years.

Nurtured by such influences, his education superintended by such a father, his earliest memory being of the conversations of such men, it would be impossible for the subject of our sketch to be other than that which he has been,—an authority in his own field of study. In 1851 James G. Cooper graduated from the College of Physicians and Surgeons, New York, and henceforth will be known to us as Dr. Cooper. The succeeding two years were spent in the City hospitals, when at the beginning of the year 1853 we find him taking the initiatory step that to him was the turning point of his life; a period in which hope and ambition as regards certain directions became ruling factors and decided his course.

We may be pardoned for dwelling a moment on a period that strengthened his tendencies, and decided the course of his ambitious future. At this time the Government had determined to take some action in regard to a trans-continental railroad, and was making arrangements for a preliminary survey for a route between St. Paul and Puget Sound, and, on April 27, 1853, Dr. Cooper signed a contract with Gov. I. I. Stevens, (who had lately been appointed Governor of the Territory of Washington, and placed in charge of the survey) as one of the physicians to the survey. This appointment meant more to him than the mere $70.00 a month that he received, as it brought him into direct contact with those bright and

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able minds whose after acts became a large portion of the history of our country, and of science. What a galaxy of bright names have been clustered around this survey. These were the men with whom our friend lived, thought and acted.

To the Eastern division Dr. Suckley was assigned, while Dr. Cooper was assigned to the Western under the direct superintendence of Brevet Captain Geo. B. McClellan of the Engineer Corps, to whom he reported June 14, 1853.

At this point we must digress to note the names here associated, which in a few years were to stand as the supporters of principles whose final disposition was made the basis of our Civil War. Jefferson C. Davis wrote and issued Dr. Cooper's instructions; Geo. B. McClellan was his immediate commander; U. S. Grant was the Regimental Quartermaster that issued his supplies; A. J. Donelson was in command of the escort and Hardie in command of the Division of the Pacific. As we read the orders and documents signed by these men, what memories are awakened!

Connected with this survey was Mullen, who afterwards became the roadmaker. There were John Torrey, Asa Gray, F. V. Hayden, Gibbs, Meek, Baird, Le Conte, Lesqueraux, Warren, Suckley and others who were co-laborers with Dr. Cooper, and who have written their names on the scroll of the world of science. From June 14, 1853 to April 1, 1854, Dr. Cooper was engaged in making botanical and zoological collections and meteorological observations. This latter work was the peculiar duty that was always assigned to the surgeons of the army, but until this time it had not been productive of any tangible results, although Blodgett had attempted to formulate some of the laws regarding climatic conditions, and was busy in reducing the accumulated observations, and Redfield had propounded his theory of storms. While engaged in the study of the forest growth of the Northwest, Dr. Cooper's attention was directly called to the correspondence between the forest distribution and climatic influences, which largely determined the environment. The result of this study was communicated to the public through the Smithsonian Institute, and was the first systematic statement regarding the forest growth that was issued by the Government.

While Dr. Cooper can not be regarded as a professional meteorologist, yet the reductions of the observations of this survey are models, and these observations had a profound influence on his future work. The survey was disbanded April 1, 1854, and McClellan ordered our friend to report to Gov. Stevens at Fort Vancouver. His specimens were transmitted to Prof. Baird at Washington, to which place he soon went for the purpose of preparing his report. Returning to the coast he spent the entire year of 1855 in collecting specimens of natural history, and it was at this time that his attention was so strongly fixed upon that line of thought in which probably he is best known—that of Conchology. His report on the ornithology of the survey has become a model, and is marked by deep, searching and comprehensive observations. Dr. Suckley was a joint author with Cooper, and reported on a separate section.

Late in the fall of 1855 Dr. Cooper went up the coast to Gray's Harbor, joining the Indian Treaty Commission under Gov. Stevens, intending to accompany the Governor to the Blackfoot Council at Fort Benton, but in this he was disappointed. In the meantime he made a voyage to the Straits of Fuca and spent a month on Whitby's Island, collecting specimens, returning to Shoalwater Bay in July where he remained until Oct. 4, when he sailed in the Coast Survey steamer *Active*, by invitation of Capt. Allen, to San Francisco. He spent six weeks collecting specimens in the Santa Clara Valley, then proceeding southward to Panama he collected shells for his father, whose last scientific writing was a report on West Coast shells, *Pacific R. R. Report*. This large collection passed into the hands of the Chicago Academy of Sciences and was destroyed in the great fire. Dr. Suckley was not with him at this time, he having returned to the East. Altogether Dr. Cooper spent two years and three months in Washington Territory, and this was really his school of preparation. From April 1, 1854, until 1857, all of the work that he did was by his own private enterprise and in obedience to his love for science, and it is at this point that we bid farewell to the botanist and welcome the ornithologist and conchologist.

On April 22, 1857, Dr. Cooper was by the Secretary of the Interior, appointed Surgeon to the Wagon Road from Fort Kearney to the South Pass and Honey Lake. However, when the expedition reached the Rocky Mountains, it became necessary to disband it, and the Doctor went on a collecting trip through the Mojave desert. The results of this trip are contained in his various reports on the fauna of

Montana, Wyoming and the Mojave, and are scattered through his later writings. On April 16, 1860, Gen. W. S. Scott issued special order No. 47, directing Dr. J. G. Cooper as Contract Surgeon, to report at New York, and to proceed thence to Fort Columbus, Department of Oregon, accompanying a detachment of recruits. This duty terminated Oct. 19, 1860, but his contract was continued to Dec. 1 of that year. Again as a student we find him collecting along the coast from San Francisco to San Diego. From now henceforward we view the energetic, thoughtful, scientific mind. From 1861 to 1874 was one continuous series of field observations and studies, the results of which are embraced in his numerous publications until the year 1890. This period will again be examined when we speak of his publications.

The gigantic struggle of the Civil War found him a student and an active worker in the field of science. Watching this struggle, listening to the roll-calls of the dead, sick and wounded, he again sought service in the army, and on May 24, 1864, Gov. F. F. Law commissioned him as Assistant Surgeon, 2d Cavalry, California Volunteers, and he served with this regiment until its muster out. Even during this period he did not relinquish his scientific work, which was that of identification of individual specimens, of reference, and in publishing his observations. He was now a systematist and not a collector. January 9, 1866, he was married to Miss Rosa M. Wells at Oakland, California.

It is not our purpose to draw aside the curtain that separates his scientific and public life from the sanctity of his home-life. At present we feel that we have no right to enter the home and to paint the picture of the peace and happiness of that home circle, where, surrounded by wife and children, he, in perfect security and the loving trust of a well spent life, calmly awaits the summons that shall bid him move to another home. Sometime it may be our duty and pleasure to draw the picture of his home life and to write more fully of his scientific life, but the time is not yet come, and it may be that other and better pens than ours may perform this duty, but none would bring to its accomplishment more loyal labor. Until 1871 Dr. Cooper was in the active practice of his profession, when his health failing, he moved to Ventura County, California, and remained there engaged in collecting until in 1875 he moved to Hayward, California where he now resides.

Thus far we have carried a brief. running itinerary, as it were, of his scientific life, recounting his movements until the time that he moved to Haywards, at which it is our purpose to leave this view of his life, and take up the purely scientific portion and his publications. In 1858 Dr. Cooper was made a member of the New York Lyceum, now New York Academy of Sciences. Although not one of the charter members of the California Academy of Sciences, he is one of its early members, and until failing health prevented, one of its earnest and active workers, holding for several years the office of Vice President and one term as Second Vice President. During the time of the auxilliary clubs he was the President of the Zoological Club. Much of his active work in connection with the Academy has been in palæontology, and he was for some time curator of this section. A large number of his works were first published in the Proceedings of the Academy. He did considerable work on the Geological Survey of California under Whitney, a portion of this being in pure geology and a portion in palæontology. He compiled the catalogue of California Fossils for the Mining Bureau.

Our first impulse was to give a full catalogue of his publications, but having arranged a full list of titles, we have thought it would meet the requirements of this sketch in a better manner if a synopsis by subjects were given in lieu of the catalogue: On Conchology, 43 papers, Botany, 6 papers, Ornithology, 12 papers, Mammals, 8 papers, other scientific subjects, 7 papers. Total, 76. While his scientific work has been a varied one, it is his ornithological work that particularly interests our Club, and it may be inappropriate for the BULLETIN to present any other phase, yet before examining his ornithological contributions we cannot refrain from mentioning other work for the reason that it bears so directly on certain phases of his purely ornithological work. Necessarily we must omit any reference to conchology and palæontology, as the scope of the BULLETIN will not admit of such discussion. Nor is it our present purpose to critically examine his ornithological writings, but rather to draw attention to the fact that Dr. Cooper is one of our best ornithologists, because, to many, the conchologist has overshadowed the ornithologist in his work. We wish now to refer directly to the work that in reality was the result of his meteorological observations and directed his attention to the question of the geographical distribution of plants and animals. This subject has been distinctive of all of his later work, and if we are not in error, he was the first to note the particular laws governing the environment of bird-life.

At the time he presented his essay on the geographical distribution of plants, no one in the United States, and only De Candalle, Richard and Humboldt in Europe, had critically examined this subject, and Michaux, on the basis of the forest growth of a portion of the United States had noted it. While Purrsh, Bartram, Nuttall, Barton and Torrey had preceded him, they are silent on the laws or conditions governing the distribution, and while Douglas and Eschscholtz preceded him on the West Coast and noted cases of geographical distribution, they were from the very paucity of systematic observations unable to formulate any scientific generalizations. Then we regard this essay as the first systematic presentation of this subject in the United States. From the plants he carried this question into the life history of the *Molluscæ*, and thence he laid the foundation of his generalizations regarding the distribution of bird-life. There can be no doubt that this question of geographical distribution has marked and modified our views of the life history of birds, and from the mere descriptive technology of ornithology, we have opened a new and varied field of ornithological study. In this particular field he has been a pioneer, and it is a portion of the special work of this Club. To the scientist the work of Dr. Cooper is of special value, and this is acknowledged and emphasized by Prof. Baird, who says: "By far the most valuable contribution to the biography of American birds that has appeared since the time of Audubon, is that written by Dr. J. G. Cooper in the Geological Survey of California,"—(BAIRD *North American Land Birds*. Preface page 1.)

While the number of his publications on conchology exceeds those on ornithology, in the latter they have taken the form of finished works or monographs, which have such a value as attaches to the works of Audubon, Baird, Wilson and Bendire. During his work on the Pacific Coast Dr. Cooper discovered and established ten forms, which will be made the subject of a paper in our next issue.

Lewis' and Clarke's explorations to the head waters of the Missouri River made known to us that vast expanse of territory known as the Northwest and Audubon, Nuttall and Townsend were the first to describe and make known its zoology. The exploration of Maj. Long in 1870, of which Dr. Edwin James was the scientist, reached to the south and west of the territory covered by Lewis and Clark, but did not to any great extent enlarge our knowledge of its zoology, as James was a better botanist than zoologist. To a certain extent the same may be remarked respecting the explorations of Fremont. The botany of these several surveys and explorations was particularly elaborated by Torrey, Gray, James and Eaton, while the zoology was not so thoroughly elaborated.

In 1831 Sir John Richardson published the results of his observations of a portion of the territory covered by the Hudson Bay Company, but none of these, however, explored Colorado, Arizona, Nevada and California, although the work of Eschscholtz covered a portion, and it was not until the Geological Survey of California under Whitney that this territory really became known to science. Thus this survey becomes a starting point and a scientific epoch, as it were. To this survey Dr. Cooper was assigned as zoologist and by mutual consent between he and Whitney, the notes and specimens were to be placed in the hands of Prof. Baird for elaboration at the Smithsonian Institute, and to be finally published as a portion of the work on *The Land and Water Birds of North America* by Baird, Brewer and Ridgway. This arrangement, however, was not practically carried out, and a large portion of this work was published by Whitney as a part of the California Reports. A portion of the bird skins were deposited at the State University at Berkeley.

Thus it was the zoological work of Dr. Cooper in connection with this survey that has so enlarged our real knowledge of the zoology of this section. Thus, from December 1860 until April 1862, and a considerable portion of 1863 he was collecting in the Colorado Valley near Fort Mojave. This included the vicinity of San Diego, San Pedro, Santa Barbara and the islands of the coast. In 1864 he explored a portion of the coast from Bolinas Bay to Santa Cruz, and during a portion of this time (1862) was assisted by Dr. Edward Palmer. During this period he did a large amount of gratuitous work, in the way of elaborating the material in various branches of the zoology of the Pacific Coast. In 1865 he prepared his series of reports on the higher classes of animals. We hope that this preliminary sketch will call attention to Dr. Cooper's ornithological work, and while it is not intended to be critical, we have attempted to do him justice as an original observer and as an author. In a subsequent issue of the BULLETIN we will give a detailed catalogue of his ornithological publications expressly prepared for students who wish to examine them.

Nesting of the Santa Cruz Jay.

On the 30th day of April, 1897, I was landed on the west end of Santa Cruz Island and for five days busied myself in collecting and caring for the few species of birds found within a few miles of camp. I had been hoping to find the Santa Cruz Jay nesting, but until the forenoon of the 8th of May not a bird had been seen. On that day, after a long walk up the bottom of a canon, the first Jay was seen perched on a dead willow stump a short distance ahead, and was at once laid away in my basket out of the hot sun. A 20 minutes' search among the bushes and small trees nearby revealed a nest in the thick top of a scrubby oak, on the steep side hill and on a level with my eyes. A careful approach showed the female on the nest where she remained until my hand was but 18 inches from her. She then flew to a tree forty yards off, from which she too was laid away with her mate.

The nest contained two eggs and was the counterpart of a California Jay's nest, being composed principally of oak twigs and lined with rootlets. The next day, after a long steep climb over rough hills, a second nest was found near the bottom of a rocky canon in a tangle of bushes. The birds were heard calling on the hill above the nest, which, after a short search, was located. It was similar in construction to the first and contained three eggs. A half mile farther down the canon another nest was found near the end of an oak limb, fifteen feet from the ground and contained two young birds. The location, material and size of this nest was very similar to that of the Blue-fronted Jay in Santa Clara County, Cal., so much so in fact, that I had to tear it slightly to make sure there was no mud in it. The birds were absent when I climbed out to it, and I thought it possible that the Blue-fronted might occur on the Island.

A few hundred yards farther a nest was seen in a willow tree near the stream, twelve feet up. The bird remained on until I nearly touched her, when she flew across the stream and called her mate, who came and silently watched me a short distance away. The silence of the Island Jays was very noticeable, and except for their habit of perching in conspicuous places, might have prevented their discovery. Judging from the four nests examined, two or three eggs would seem to be an average set. The eggs are somewhat larger than the average eggs of *A. californica*. Those obtained measure: (Set ½); 1.21x .85, 1.18x.84. (Set ⅓); 1.15x.90, 1.18x .90, 1.18x.92. (Set ⅔); 1.10x.86, 1.14x .88, 1.16x86 inches. The markings are much lighter in color also, being light brown, grayish and lavender.

R. H. Beck.

Berryessa, Cal., Dec. 24, 1898.

* * *

Two Albinos from Los Angeles, Cal.

Carpodacus mexicanus frontalis—On Oct. 14, 1898 I secured an albino House Finch from a large flock of the same species. The head, neck and body of this bird are of almost snowy whiteness. On the wings, two primaries, two secondaries and most of the greater and lesser wing coverts are white; the remainder of the wing feathers are normal. The pattern of coloration on the wings is exactly similar. The tail is normal, with the exception of one of the middle feathers, which has a white tip and has a peculiar shriveled appearance. The bill was white, rather bluish toward the tip; the feet, pale flesh color, and the legs a trifle darker; iris, brown. On dissection it proved to be an adult female.

Zonotrichia leucophrys intermedia. On Dec. 18, 1898, Mr. O. W. Howard brought me several birds he had secured the same day, and among them, an albino Intermediate Sparrow. It was an immature bird, but the sex was indistinguishable, the sexual organs being destroyed by the shot. It is of a dull, smoky white all over except on the top of the head, where traces of the brown crown are apparent. Traces of the white tips are visible on the greater wing coverts, which are a trifle darker than the rest of the wing. The iris was brown. H. S. Swarth, Los Angeles, Cal.

Spring Migration of 1896 in the San Gabriel Valley.

BY HORACE A. GAYLORD, PASADENA, CAL.

[Read before the Southern Division of the Cooper Orn. Club, Jan. 8, 1898.]

OWING to the mild winter of 1895-96, the spring migration of 1896 was somewhat earlier than usual. Beginning in the latter part of February with the arrival of flocks of Violet-green Swallows, the migration promised to be at its height before the middle of April. But on March 2 and 3 it was suddenly checked by severe snow storms in the mountains and cold weather in the valley.

The cold weather not only proved to be a check to the northward migration, but it cut off the food supply of birds, which had not been seen or only recorded in small numbers during the winter, and compelled them to move southward out of the mountains into the warmer valleys nearer the coast. The most noticeable example of this was the Band-tailed Pigeon. This species had not been seen in the valley during the winter, but immediately after the storm large flocks of them were noticed in the grain-fields and oaks of the valley. The mountain Bluebird had before March 3 been noticed once or twice during the winter; but in the two weeks following March 3 it was common. Among other species whose numbers in the valley were considerably increased by the effects of the storm were the Californian Woodpecker, Golden-crowned Sparrow, Lincoln's Sparrow, Thurber's Junco, Cedar Waxwing, and Western Robin.

The Swallows which had so early ventured upon their northward journey were caught in rough weather. A number were seen on March 3 flying wildly in the pouring rain. However, the quick return of warm and pleasant weather cleared the valley of a large number of winter visitants and by March 10 the swallows had again taken up their course through the valley from southeast to northwest, breaking the wind, as it were, for the great multitude which was to follow.

Before the end of March the northward migration was well under way; Band-tailed Pigeons, Sharp-shinned Hawks, Red-naped and Red-breasted Sapsuckers, Lewis' Woodpeckers and American Pipits had disappeared on their northward journey; while Say's Phœbes and Vermilion Flycatchers had left the valleys of the coast for their breeding homes on the east side of the mountains. But to fill the vacancies made by these departures there had arrived from the south Texan Nighthawks, Costa's and Rufous Hummers, Arkansas Kingbirds, Bullock's and Arizona Hooded Orioles, Cliff Swallows and others.

The number of arrivals and departures each day was increasing, and by the last two weeks in April the northward movement was at its height. Most of the migrants were moving northwest, parallel to the mountain ranges.

About April 4 the last Cassin's Kingbirds were seen; on the same date the Ash-throated Flycatcher was first noted in Eaton's Arroyo. The Black-chinned Hummingbird, Western and Hammond's Flycatchers, Black-chinned Sparrow, Green-tailed Towhee, Black-headed Grosbeak, Lazuli Bunting, Warbling and Cassin's Vireos, Calaveras, Yellow, Black-throated Gray, Macgillivray's and Pileolated Warblers, and Russet-backed Thrush were present in numbers before April 15. Before this date Lutescent Warblers and Western Yellowthroats had increased their numbers over winter residents to a large extent. California Purple Finches and Ruby-crowned Kinglets had left the valley.

The migration was fast reaching its height; still, a number of summer residents and transients had not arrived. April 25 showed the presence of more species than had hitherto been noticed; over sixty different species were recorded within the radius of 1½ miles from the mouth of Arroyo Seco outside the mountains. Warblers, sparrows and flycatchers were especially abundant. The new arrivals were the Belted Kingfisher, Olive-sided Flycatcher, Western Wood Pewee, Western Blue Grosbeak, Phainopepla, Townsend's and Hermit Warblers, and the Long-tailed Chat. The Thurber's Junco and the Dwarf Hermit Thrush were the only species which had left since April 15.

Soon after the 25th, however, the great wave of birds began to show signs of decreasing, and by May 5 there had been considerable lessening in the numbers of a good many species. The Belted Kingfisher, the Intermediate, Golden-crowned, Black-chinned, and Lincoln's Sparrows, Green-tailed Towhee, Western Blue Grosbeak, Cassin's Vireo, Calaveras, Lutescent, Audubon's and Black-throated Gray Warblers, had entirely disappeared. There was yet to appear an important factor of the season's migration, and its magnitude was possibly more noticeable because it showed itself in its full strength after the greater part of the general migration had passed. Filling the entire valley with one of the most beautiful forms of bird-life, it was a pleasant sight to everyone but the orchardists. The first individuals of this migration-wave of Louisiana Tanagers appeared during the last few days in April. The birds were common by May 3, and from May 6 to 20 they were abundant everywhere in the valley. Two of the greatest centers of attraction for the mass of migrants were the blossoming grevilia trees and unfortunately, the cherry orchards, whose fruit was then in its prime. Never before had a spring migration filled the valley with such a number of brilliantly-colored birds of the same species. Even uninterested persons remarked the abundance of Tanagers. Happily this was only a migration, and by May 25 the greater part of them had gone, and May 29 saw the last one in the valley.

While so much attention was directed toward this remarkable migration of Tanagers, most of the other migrants had passed on, and all our summer residents had arrived. However, large numbers of Phainopeplas were still in the valley; and had it not been for the presence of so many Tanagers their numbers would have seemed very remarkable. The pepper trees and oaks were the feeding places of hundreds of these birds, which stayed in the valley until June 10, after which all but the breeding birds had left.

Since the last of February I had been busy watching the ever-changing representation of bird-life, and now could rest and wonder at the great transformation which had taken place. An avifauna only represented by residents and winter visitants had been gradually replaced by summerers. No date could be fixed when the summer visitants appeared and the winter birds departed; no definite line drawn between migratory and sedentary birds; but from the time when the first Violet-green Swallow obeyed the natural law which told it to return to its summer abode, until the last Phainopepla had reached its breeding home in our fields, there had been an ever-changing avifauna in the San Gabriel Valley.

* * *

John M. Welch of Copperopolis, Calaveras Co., writes of the Phainopepla as a common summer resident at that place. They were first observed in May, their single bell-like note acting as an index to their location. He says: "While the notes of these birds are heard all through the hills, each pair have their own foraging grounds which are not intruded upon. I endeavored to locate some of the nests but the female was probably on the nest and the male would not approach it while I was near and I could never detect him taking food. I watched for their broods but could never observe them. The birds have been gradually disappearing since the first of September but I have heard occasional notes up to the first of November."

Contributions for the next issue of the Bulletin are desired promptly. To fill the 16 pages bi-monthly means that you, as a contributor, must collect your field notes and prepare them for publication at once. No note of interest is too short to find a place in our Bulletin and we believe that those who have heretofore been discouraged at the time required to secure publication will appreciate the prompt appearance of their articles.

Nesting of the Fulvous Tree Duck.

BY A. M. SHIELDS, SAN FRANCISCO.

[Read before the Northern Division of the Cooper Orn. Club, Jan. 7, 1899.]

WHILE the Fulvous Tree Duck (*Dendrocygna fulva* Gmel.) is well known to nearly, if not all, our leading authorities and has been made the subject of extended notes by some,–notably Baird, Brewer and Ridgway, very little has been known of its nesting habits. I have made a special study of our Duck family and have personally taken sets of eggs of eight species, but it was not until June of this year (1898) that I had the good fortune to discover the nest of *D. fulva*, and as is the rule with desirable oological finds, my "take" was quite unexpected.

Mr. Brewer states in his notes that this duck occasionally visits the Island of Trinidad (at intervals of several years) and while on the island raises its young, several broods sometimes being raised during a season, but he is apparently unable to definitely state whether the bird nests upon the ground or in hollow trees as does its black-breasted congener. Col. Grayson discovered this duck in the vicinity of Sonora, Mexico, where it was fairly abundant during the breeding season. He was informed by natives of its nesting in that locality though he omitted to state other than that "the birds were said to lay from 12 to 15 pure white eggs."

My impression is that this bird is among the most variable and cosmopolitan in its nesting habits of any of our ducks. While in the central part of the state during the early part of last June, I was collecting in an immense tule swamp containing a rookery of White-faced Glossy Ibis and Black-crowned Night Herons when I was surprised at seeing a large number of Fulvous Tree Ducks throughout the swamp. The birds were either in pairs or multiples of pairs, and although the sexes are usually so similar as to make identification at a little distance impossible, I could, on this occasion, readily locate the females by the fullness of the abdomen. The ducks were much interested in our movements, frequently circling around close to us and indicating their displeasure by continually uttering their peculiar whistle. As these actions were suggestive, my assistants and myself forsook the Ibis rookery and commenced a systematic search among the tules for possible nests of *D. fulva*. After a vain search of several hours we decided that it was either too early or else the birds were not nesting there.

June 25 found us again on the ground, the first pleasant observation being that instead of pairs, many single ducks (presumably old drakes) were scattered here and there; also that when a small group of birds were seen it was as likely to contain three or five ducks as two or four, all this indicating nests and setting birds--somewhere. We were not long in again penetrating the dense tules where we searched diligently for hours, but about the only nests found were dozens of the White-faced Glossy Ibis, which, at this time, nearly all contained four little jet black balls of down. Here I would mention the apparent apathy of the old Ibis' toward their young; the very instant we approached the nest the old bird would rise into the air and off she would go a mile or more to a feeding ground and frequently not appear while we were in the vicinity. A few weeks before, while collecting Ibis eggs, the parent birds continually hovered overhead or near-by and as soon as we were a few yards from a nest just robbed, the old bird would settle down on its edge and there remain in silence until lost to view among the thick rushes.

After a while I flushed a Redhead from her floating palace of dry tules and down, the nest containing 15 eggs which I soon discovered were not all alike. Twelve were undoubtedly those of the Redhead but three were different from anything I had ever seen and were slightly smaller, opaque, slightly pyriform and of a chalky appearance when compared with those of the Redhead. I instinctively decided that these three strange eggs were those of the Fulvous Tree Duck. Shortly after this one of my assistants found a floating nest containing six large white eggs and one small one; the nest and its six large coarse-grained eggs I at once identified as those of the Ruddy Duck, while the seventh resembled the three strange eggs of the Redhead's nest. To make a long story short we found six or eight nests of the Redhead and Ruddy Ducks and over half of them contained one or more of the strange eggs, but search the tules as we might not a single nest of the Fulvous Tree Duck could we find. This was unaccountable for the birds were certainly laying and the parasite eggs were theirs, and I found myself wondering if it were not probable that the birds being accustomed to nest in hollow trees, and not having such facilities at hand, had abandoned the idea of having nests of their own and adopted the method of the Cowbird in rearing its young.

As the afternoon was advanced we gave up for the day and remained over night at a farm-house a few miles from the swamp. Starting early next morning to search a different locality, the place selected was an extensive strip of high grass growing in the damp swampy ground and sometimes in several inches of water. The grass was from two to three feet high, of a variety commonly known as"sword" or "wire" grass and covered an area of perhaps one hundred acres of low land between the deep water and the higher ground a few hundred yards back. Just as we were alighting from the wagon on the edge of the swampy area I saw a Fulvous Tree Duck flying from the swamp. After a few circles she dropped down among the dense grass not 300 yards distant, and I, not stopping to put on my wading boots but keeping my eye on the spot where she had settled, quickly approached and when within a few yards I was delightfully shocked by a flutter of wings and the sight of the old bird rising and winging a hasty retreat. I reached the nest and what a thrill at the sight,--there in the midst of a little vacant square of four or five feet was a beautifully built nest, composed entirely of grass, about six inches in height and containing 19 beautiful white eggs! I immediately saw by comparison that my surmise as to the identity of the strange parasite eggs found the day before was correct.

The nest was situated in the center of a little open spot in the grass; the open area had evidently been created by the bird in her quest for building material, for she had proceeded to pull up or break off the grass immediately adjacent as her nest grew higher and larger, until the nest finally occupied a position in broad daylight as it were, although it is not improbable that when the spot was selected it was well hidden by overhanging and surrounding grass. I was not long in securing this nest and eggs, after which we began a systematic search through the high grass and in a short time I had found my second nest constructed similarly to the first but a little better hidden, being under an overhanging bunch of grass which furnished a slight covering. This nest contained *thirty* eggs, deposited in a double layer, and if the first set of nineteen was a surprise what shall I say of this?

We subsequently found about a dozen nests, all similarly situated and most of them containing from 17 to 28, 30, 31 and 32 eggs. The smallest set found was of nine and another of eleven eggs, both evidently being incomplete as the nests were not finished and incubation had not commenced. There are but two ways in which to account for the remarkable number of eggs in the sets; either the Fulvous Tree Duck possesses greater fecundity and is much more prolific than any other known wild duck, or several females frequently occupy the same nest. As to which of the above theories is correct, and whether their habits in this respect differ in this country from those in more southern climes, I am of course unable to state. While I am inclined to the belief that one duck generally contributed the entire quota of the large sets, yet the contrary would not surprise me, as the very fact of their depositing eggs at random in nests of other species demonstrates their "easy conscience" in such practices.

The nests were in main constructed of wire grass and sparsely lined with down and feathers; the eggs were invariably deposited in two layers and are of a pure white color, and as compared with the eggs of other ducks, possess a rather rough shell, sometimes even approaching a chalky appearance and being frequently slightly pyriform in shape. The measurements vary from 1.35x1.98 to 1.65x2.20 inches, the majority of eggs being a mean average of these extremes. The eggs partake of the characteristics of both those of the goose and duck, but this is not remarkable when it is remembered that the Tree Ducks constitute a family supposed by some to have originated ages ago from the hybridization of the goose and duck. They are equally at home in an alfalfa patch (about dusk) or in a lake of water, and are entirely at home in an oak forest not far from the breeding swamp, where they are said to assemble for the purpose of feeding on acorns.

I regretted my inability to visit the breeding site of these birds a month or two later in order to study their life history, but feel assured that immediately upon the young birds being able to fly, the parents assemble their clans and depart at once for their southern home, as I have never seen *D. fulva* in California later than September, after which they are entirely absent from our shores uotil the following spring when they return in limited numbers. That well known ornithologist, Mr. W. Otto Emerson, of Haywards, has kindly favored me with his notes on this species which would indicate that the birds also nest in trees in this state, from all of which we may consider *D. fulva* a strange bird in more ways than one--equally at home on land or water and wholly unbiased in its nesting sites and feeding grounds. Mr. Emerson's notes are as follows: "On May 23, 1882, while collecting with Wm. C. Flint at Lillie's ranch near Tulare Lake I noticed a Fulvous Tree Duck sitting in the entrance hole of a large white oak near one of the ditches, but it was out of the question to reach it. Again on May 26 another was located sitting on the edge of a hole high up in a white oak. Lillie's ranch is nine miles from Wildflower, Tulare Co. and four or five miles southeast of the lake."

A New Race of the Brown Towhee.

BY RICHARD C. MCGREGOR.

Pipilo fuscus carolæ,[1] subsp. nov. NORTHERN BROWN TOWHEE.

Closely related to *P. f. crissalis* but distinguished by grayer and more uniform color of upper parts, much paler throat patch and slightly longer tail.

Type, ad. male (No. 2200, Coll. R. C. McG; Battle Creek, California, Nov. 7, 1898). Wing, 4.01; tail, 4.49; tarsus, 1.08; exposed culmen, .62.

The characters assigned to this form are seen at a glance, while a comparison of a series from Battle Creek with birds from the central part of California, show the under parts to be slightly paler and clearer in the northern bird. The only specimen in my collection which approaches *carolæ* is a skin from San Geronimo. Four young birds from Redding, taken in August, and one from Battle Creek in October, are very much like young examples from Santa Cruz.

AVERAGE MEASUREMENTS TAKEN FROM SIX EXAMPLES OF EACH FORM.

	Wing.	Tail.	Tarsus.	Exposed Culmen.
P. f. crissalis	3.76	4.32	1.08	.56
P. f. carolæ	3.76	4.41	1.03	.59

Fifty-five skins have been examined from the following localities: San Geronimo, 3, St. Helena, 4, Palo Alto, 20, San Jose, 1, Livermore, 1, Gilroy, 1, Banta, 1, Ione, 1, Morgan Hill, 1, Santa Cruz, 2, Placerville, 1, Drytown, 3, Ukiah, 2, Cahto, 3, Redding, 4, Battle Creek, 7.

Battle Creek, the type locality, forms the boundary line between Tehama and Shasta Counties. My towhees were collected on either side of the creek, less than two miles from the Sacramento River. Ball's Ferry is the nearest post-office.

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[1] Named for Charlotte C. McGregor.

WILLIAM S. COBLEIGH.

THE Cooper Ornithological Club has suffered the loss of an esteemed member in the death of Mr. William S. Cobleigh, who was perhaps best known to our readers as a worker in Illinois ornithology, although for three years past he had been an active member of the Club. His excellent writings on the birds of his native State, Illinois, in many of the older magazines have made his name familiar to all the older workers. In August 1897 he left California for the gold fields of Alaska, where, a year later he was stricken with typhoid fever and died at Dawson Sept. 14, 1898.

The "Klondike Nugget" says: "William S. Cobleigh, formerly assistant postmaster at Skaguay, who came to Dawson in July last and who recently died at St. Mary's Hospital, was buried Sunday afternoon (Sept. 25) in the Dawson cemetery under the auspices of the Order of Elks, attended also by members of the Masonic Fraternity and Knights of Pythias, of which organizations he was a member. In life he was a magnificent specimen of physical manhood, being over six feet in height, and in good health, weighing 225 pounds. Contracting typhoid fever, despite the most diligent attention medically and otherwise he succumbed to the dread disease. At the cemetery a simple but beautiful service was rendered, the Rev. R. J. Bowen officiating. Bro. Captain Jack Crawford, the famous poet scout, made some feeling remarks after which Bro. George Noble of Seattle Lodge of Elks sang "Nearer My God to Thee," his magnificent voice and the beautiful rendition of this hymn touching the hearts of all. It is expected to forward his remains to his former home at the opening of navigation next spring."

William S. Cobleigh, whose portrait we present, was born in Pekin, Ill., August 30, 1868, being 30 years of age at the time of his demise. In 1880 he moved to Peoria, receiving his education in the public schools of that city and Pekin, after which he spent two years at Knox College, Galesburg Ill. In 1889 he removed to Canton, Ill., where he followed farming until his departure for California in 1897. He was married to Miss Jessie Justus of St. Cloud Minn., on Dec. 25, 1892, but no children survive him. He leaves a wife in Peoria, Illinois, father, mother and sister in Los Angeles and a brother in Canton, Ill. He was an authority on the birds of Illinois and donated his large collection to the Peoria Scientific Association a few years since.

At a meeting of the Cooper Ornithological Club held Nov. 5, the following resolutions were adopted:

Whereas, we have learned of the death of our esteemed co-worker and fellow member W. S. Cobleigh at Dawson City, September 14, 1898, be it

Resolved by the Cooper Ornithological Club assembled, that it is deeply conscious of the loss of a loyal member and conscientious worker, and be it further

Resolved that the ornithological ranks have suffered the loss of an ardent bird student,—one whose whole-souled admiration for the varied charms of Nature was outwardly reflected in his generous and impulsive disposition, and be it further

Resolved that these resolutions be enrolled in the minutes of this meeting and a copy transmitted to the family of our deceased member.

Thus has another naturalist joined the "innumerable caravan" which, let us hope, leads to a keener perception of these mysteries of nature which we would all attain.

C. Barlow.

* * *

Nesting Observations on the Black Phœbe.

BY F. B. JEWETT.

[Read before the Southern Division of the Cooper Orn. Club, Jan. 8, 1898.]

My observations have been confined to one pair of birds which have nested on my barn for some eight years past. While I cannot state positively that it has been the same pair during the entire term I am led to believe that such is the case. During the first two or three years the birds changed the site of their nest frequently, probably owing to some disturbance, for afterwards when I guarded them against interference they chose a site which they have occupied ever since. The nest they now occupy is situated on the north side of the barn under the ridge-pole, almost inaccessible except with a long ladder. On account of this, my observations of the inside of the nest have been by means of a mirror attached above.

Both birds assisted in the construction of the nest, one working while the other kept watch. Both also incubated, dividing the work equally, as nearly as I could judge. In most cases the eggs were laid on consecutive days, incubation commencing immediately after the laying of the last egg. The young grew at a great rate and kept the old birds busy from morning to night bringing food. They remained in the nest on an average about two weeks, or until it was too small for them. After leaving the nest the old birds continued to feed them for some time. It was a ludicrous sight to see five fluffy youngsters ranged one after the other on the rose-bush stakes, with quivering, outstretched wings and constant plaintive cries waiting their turn to be fed by the parents. The old birds took them one after another, never seeming to make a mistake as to whose turn it was next.

The youngsters were voracious little things; watch as long as I would I never saw one satiated. After feeding them as long as they thought advisable, the old birds abandoned the young and started a new brood. In this way three broods were generally reared in each year, the first and second usually consisting of five, and the last of four birds. The youngsters never remained long after they had been turned adrift, usually disappearing on the third day.

The birds have used the same nest for four years, tearing out the old lining and replacing it with new at the beginning of each season and mending places that had been broken. In 1896 eggs were laid April 3, 4, 5, 7, 8, and hatched on April 21, 22 and 23. Young birds left the nest May 9 and were abandoned by the old birds on May 27. One of them became entangled in the horse-hair lining of the nest, fell over the side, and was strangled to death; his remains are still hanging there as a reminder of the fate of a too precocious Black Phœbe. In 1897, by March 29, the old birds were busy tearing out the old lining and replacing with the new. Eggs were laid April 7, 8, 10 and 12; incubation began April 15, the eggs hatched on May 1 and the young left the nest May 15. I am under the impression that this brood fell victims to cats as they disappeared suddenly before they were able to take care of themselves.

* * *

Mr. R. B. Moran, of San Luis Obispo, will present through the Club a paper on the nesting habits of the Black Oyster-catcher, as observed on the coast of San Luis Obispo County. He remarks the tameness of the birds and hopes to secure some interesting photographs of them next season.

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Notes of interest and striking ornithological photographs for illustration are solicited from members.

When extra copies are desired, they should be ordered at the time of communicating the article.

Write plainly and confine your article to one side of the sheet.

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EDITORIAL NOTES.

To those who have followed the reports of the Cooper Ornithological Club for six years past our BULLETIN will need no introduction. It but marks a new era in the publication of the Club's proceedings, for which we have hitherto been dependent upon space afforded by current magazines, and to whose publishers the Club acknowledges its indebtedness. The service thus secured has been as generous as we could consistently expect, but our increasing needs have proven this method of publication wholly inadequate. The BULLETIN has taken form in response to a general demand, and the initial issue represents fairly the standard which shall characterize the numbers about to follow.

The BULLETIN will occupy a sphere necessarily its own; its object being to represent generally the great West, and primarily the Cooper Ornithological Club. It is conceded that the West is rich in its possibilities of new discoveries, both in faunal forms and data regarding the life histories of many species, and through the field work of a widely distributed corps of members, the Club hopes to present many papers of special value to science. The support of all who are interested in securing these results will be generously reciprocated and the BULLETIN will be found not only valuable to members of the Club and to Californian students of birds, but will prove indispensable to Ornithologists and Oologists of the entire country who would keep in touch with the progress of science in the great West. Descriptions of new birds, and their nests and eggs will be contributed from time to time by active field workers. Let us record your prompt response to these efforts.

We present to our readers with this issue a portrait of that veteran Californian worker, Dr. J. G. Cooper, which is here published for the first time. The biographical data secured by Mr. W. O. Emerson, an old friend of the Doctor's, was collected in part some time since by Dr. Cooper, who, in anticipation of his decline, had brought together the results of his life's work. Dr. Cooper, now 68 years of age, is partially paralyzed and enfeebled, and as the winter of his well-spent life draws near, his legion of friends will wish him days of sweet peace and immunity from pain.

Mr. Shields' contribution on the rather remarkable nesting habits of the Fulvous Tree Duck in this issue, imparts to science many interesting facts heretofore unknown, notably the manner of nesting and the number of eggs deposited by this species. It serves to illustrate the opportunity for research which lies within the grasp of almost every bird student.

Our cover design, representing the California Condor, is the production of Mr. W. Otto Emerson, one of California's favored bird artists. Mr. Emerson's home is adorned with many charming bird paintings from his own brush and which show the elegance and grace of the careful observer.

Short notes are solicited from members, who will be surprised at the many items of interest they will discover in the past season's field notes alone. These should be sent in immediately. We shall make this an interesting feature of the BULLETIN, although many notes for this issue are inadvertently crowded out.

The San Francisco *Chronicle*, of Nov 26th, prints under the caption "A Successful Crusade against Jays and Hawks" an account of a game hunt held recently by the Petaluma Sportsmen's Club, when its members turned out on a raid against all hawks and bluejays. The joint bag showed 821 bluejays and 51 hawks "of various kinds" slaughtered on the plea that "each would have destroyed at least five quail's eggs during the next breeding season." The ignorance displayed by this star organization is deplorable in the extreme, and each member should enrich his library with a few of the government publications on the raptorial birds and bluejays and their food habits, thus rendering himself more capable of exercising the discretion necessary to the proper use of a gun. The BULLETIN stands for bird protection, and will strenuously oppose wanton slaughter at all times regardless of its source. We highly commend the excellent work done and the fearless stand taken in this matter by *Recreation* of New York City.

Officers of the

Cooper Ornithological Club, 1899.

Northern Division.

W. OTTO EMERSON	President
ERNEST ADAMS	Vice President
C. BARLOW	Secretary
D. A. COHEN	Treasurer

Southern Division.

A. I. McCORMICK	President
F. S. DAGGETT	Vice President
HOWARD ROBERTSON	Secretary
H. S. SWARTH	Treasurer

* * *

Official Minutes of the Southern Division.

OCTOBER.

The Division met at the residence of H. J. Leland in Los Angeles October 7. Mr. H. Rising was elected to membership. The resignation of H. A. Young of Pasadena was accepted, and the name of Harold Gay of Crafton was proposed for active membership. A paper entitled "Notes On a Trip to the West Fork" by H. J. Leland was read. Mr. Daggett read a few extracts from a letter received from Mr. Joseph Grinnell now at Kotzebue Sound. Preparations were made for an Outing Meeting at Mt. Wilson October 29-30. Adjourned.

The Annual Outing meeting of the Southern Division was held at Mt. Wilson October 29, V. W. Owen being elected chairman pro tem. Mr. Harold Gay of Crafton was elected to active membership in the Club. Mr. O. W. Howard made a few remarks regarding the game laws of California pertaining to the Dove and Mountain Quail, and suggested that resolutions be adopted and sent to the proper authorities requesting that the season be shortened. It was decided to lay the matter over until the next meeting. Adjourned.

NOVEMBER.

The November meeting was held at the residence of F. S. Daggett in Pasadena Nov. 26, President McCormick in the chair, and eight members present. The Secretary was instructed to enquire into the rumor of the death of J. Maurice Hatch, a fellow member.

The subject of a Bulletin was discussed in its entirety and upon motion of Mr. Daggett a Committee of Three consisting of Messrs. McCormick, Leland and Robertson was appointed to draft a set of resolutions embodying the sense of the Club in this regard. The meeting adjourned to meet in December when the annual banquet will be held.

DECEMBER.

The Annual meeting was held in Los Angeles Dec. 29 with President McCormick in the chair, and seven members present. The treasurer's report showed $10.41 on hand. A letter from Mr. E. J. Hatch of Escondido was read announcing the death of his son, J. Maurice Hatch, a club member, on May 1, 1898, and the secretary was instructed to draft resolutions of respect. The name of W. E. Tyler of Los Angeles was proposed for membership. Officers for 1899 were elected as follows: President, A. I. McCormick; Vice-President, F. S. Daggett; Secretary, Howard Robertson; Treasurer, H. S. Swarth. A banquet was served and the following papers were read: Secretary's Annual Report, Howard Robertson; Notes on the Nesting of the Western Flycatcher, H. J. Leland; Summer Resident Warblers of Arizona, O. W. Howard, and four papers from the Northern Division.

* * *

Official Minutes of the Northern Division.

SEPTEMBER.

The Annual Fall Meeting was held at the home of C. Barlow in San Jose Saturday evening September 3. Fifteen members were present with Dr. F. L. Cauch as a visitor. W. H. Armitage of Alameda and Claude Fyfe of San Francisco were dropped from the Club for long-standing delinquency. The Southern Division report of July 30 was read and filed.

Henry B. Kaeding recorded the taking of an adult male Arctic Three-toed Woodpecker at Taylorsville, Plumas Co. which marks the extreme southern limit of its known habitat. The following papers were read: "A Few Notes on the Birds of Shasta Co." by Ralph Arnold; "Nesting of the Hermit Warbler" by C. Barlow; "Nesting and Other Habits of the Oregon Towhee" by D. A. Cohen; "Observations on the Anna's Hummingbird" by W. O. Emerson; "Some Summer Birds of Santa Cruz County" by H. B. Kaeding; "Just Freaks" by H. R. Taylor; "Nesting of the Water Ouzel" by John M. Willard. Mr. R. S. Wheeler entertained the members with a descriptive talk of a trip to Pyramid Lake, Nevada, after which the meeting adjourned.

NOVEMBER.

The Division met at the residence of Wm. R. Flint in Oakland with sixteen members present. The name of Theodore J. Hoover of Stanford University was proposed for membership. Nominations for the offices of President, Vice President, Secretary and Treasurer of the Northern Division for 1899 were made, the election to take place at the January meeting.

The Secretary reported the death of Mr. W. S. Coblcigh, a club member, at Dawson City on September 14, whither he had gone in the fall of 1897. Resolutions were adopted in his memory and will be found in another column. A vote of thanks was extended the Michigan Ornithological Club for a file of its Bulletin. Publishing propositions from the *Osprey* and Michigan Ornithological Club were declined. Mr. Jno. W. Daniel's proposed magazine was named as temporary official organ.

A discussion followed concerning the Club printing its own Bulletin, the Secretary being instructed to prepare and mail a general circular to all members. A special meeting for the purpose of further considering the matter was called for December 3. The Southern Division report of October 7 was read and filed.

Papers were read as follows: "Some of the Birds of Santa Cruz County" by W. O. Emerson; "Suggestions for Individual Work" by R. C. McGregor.

Adjourned.

DECEMBER.

A special meeting was held December 3, at the residence of W. O. Emerson at Haywards to consider the matter of the Club issuing a Bulletin, the same to serve as sole official organ. A Committee consisting of C. Barlow, W. O. Emerson, D. A. Cohen and John M. Willard was named to draft complete resolutions and plans for publishing a bi-monthly bulletin. A report from the Southern Division Committee was read and embodied in the resolutions. The resolutions as adopted provide for a 16-page bi-monthly bulletin, the Board of Managers to consist of an Editor-in-Chief, one Assistant and a Business Manager from the Northern Division and one Assistant Editor and Business Manager from the Southern Division. The adopted resolutions are ordered submitted to the Southern Division for endorsement. The bid for printing was awarded to C. A. Nace of Santa Clara.

JANUARY.

The annual meeting was held at San Jose, January 7. Theodore J. Hoover was elected to membership. Officers for 1899 were elected as follows: President, W. Otto Emerson; Vice-President, Ernest Adams; Secretary, C. Barlow; Treasurer, D. A. Cohen. Two Southern Division reports were read and bills for $7.15 ordered paid. Resolutions establishing the BULLETIN were passed. Papers were read: Nesting of the Fulvous Tree Duck, A. M. Shields; Nesting of the Santa Cruz Jay, R. H. Beck; A Day With the Raptores, Ernest Adams; and one paper from the Southern Division. The March meeting will be held at Alameda.

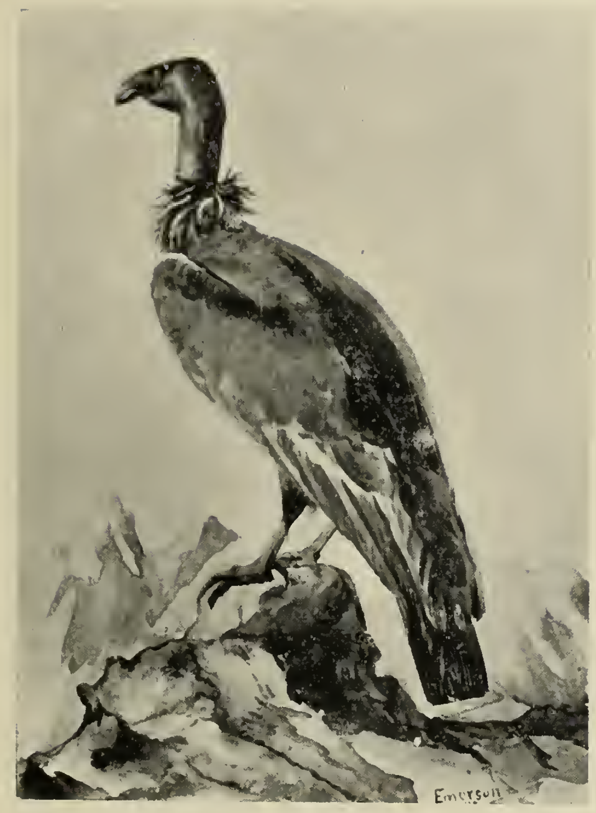
* * *

Protective Coloration.

At the time of my visit to San Jose del Cabo, Lower California, May 1, nearly all of the plants were in foliage. There are two shrubs, however, *Erythrina corallodendron* and *Fonquieria spinosa*, whose red flowers come out before the leaves. The resemblance of these flowers to a red bird was marked and several times I started, from a distance of seventy-five or one hundred yards, to carefully approach a bunch of scarlet flowers in hopes of destroying a *Cardinalis* or *Pyrrhuloxia*. I also made the error of taking blossoms for birds and believe this instance of protective coloration is worth bringing to notice, though I am unsettled as to which is protected. R. C. McGREGOR, U. S. Fish Hatchery, Battle Creek, Cal.

* * *

AT THE recent Congress of the A. O. U. in Washington, D. C., the song of the Brown Thrasher was reproduced through the graphophone. Mr. Barlow is in receipt of several graphophone records from Lieut. Jno. W. Daniel Jr., of Lynchburg, Va., which were made by Lieut. Daniel in Washington, and which quote some interesting portions of the A. O. U. programme and other matters of ornithological interest. These were reproduced at the meeting of the Northern Division of the Cooper Club, January 7.



California Condor.

Published in the Interests of Californian Ornithology.

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The Rhinoceros Auklet at Catalina Island.

BY JOS. GRINNELL, PASADENA, CAL.

[Read before the Southern Division of the Cooper Orn. Club.]

TAKING advantage of the recent Christmas vacation, I spent several days at Catalina Island, which lies about 25 miles off the coast of Southern California. Although it was the last week in December, when the hills are generally beginning to take on a green hue, I found the landscape very dry and apparently not very inviting to most land-birds. However, in the ravines and in the wash extending back of Avalon, small birds, such as they were, were very numerous.

In the brush two subspecies of Fox Sparrows and a race of the Spurred Towhee were abundant and made a constant racket, scratching among the dead leaves. The noise that a pair of Fox Sparrows can produce from a pile of dry twigs and leaves is really remarkable and out of all proportion to the size of the bird. I saw a whole flock of quail hurry through a thicket in the bottom of a ravine without half the clatter that a sparrow on the hill-side, fifty yards away, was raising. Everyone who goes hunting at Catalina is ever on the lookout for foxes, which are numerous on the Island, and there is scarcely any one who does not stop and listen with gun ready for use, when he hears the rythmic rustle of dry leaves among the dark bushes ahead of him. After all, these little birds may, at least on Catalina, merit with propriety their name of "Fox" Sparrows.

Besides the sparrows, the most abundant, and by far the most noticeable birds, were the familiar Audubon's Warblers. They were everywhere, and individuals were to be seen even on the beaches within a few feet of the surf, as usual, busily engaged in catching flies. Dusky Warblers and Vigor's Wrens were fairly numerous, but very quiet and secretive, a mood in which they are seldom found. Possibly the next rain, if it ever comes, will dispel their gloom, and restore their naturally good spirits. At any rate I hope they will be more sociable next the time I visit Catalina, for I succeeded in obtaining only ten specimens of each, where I had expected to secure a good series of twenty or thirty.

Mockingbirds were present in moderate numbers, but were likewise quiet. Indeed, I did not hear a word from them, except their ordinary harsh call-note. They, in common with the linnets, were feeding on the ripe red fruit of the cholla cactus. Possibly some of the cactus prickers, which render this fruit so distressing to persons when they eat it in a hurry, had got stuck in their throats, so they could not sing. There is a good opportunity for any aspiring ornithologist to make a new species out of the Catalina Mockingbird. All that I saw, had bright red faces, which is quite unusual in this genus, but the cactus may have had something to do with this also! However with the cactus factor acting on the Catalina Mockingbirds for several centuries, a truly distinct species may be evolved, with a red face and no song.

As I was duly informed that no one was allowed to kill mockingbirds on Catalina, I, of course, did not do so. However, I succeeded in measuring the middle toes of several specimens, and they agreed in being longer than in the case of our Pasadena mockingbirds.

I secured one very interesting specimen, a partial albino Dusky Warbler, *Helminthophila celata sordida*. Several of the wing feathers and many of the body feathers are of a very light yellow tint, in marked contrast with the normal dark olive green of the rest of the plumage. Hummingbirds were remarkably numerous about the blossoming eucalyptus trees in Avalon. They were the Allen's Hummingbird, *Selasphorus alleni*. It is curious that this species, occurring on the adjacent mainland only in the spring and fall migrations, should remain throughout the winter on Catalina, in the same latitude and only twenty-five or thirty miles distant. As it breeds commonly on Catalina, this hummingbird is undoubtedly the resident form, while the Anna's Hummingbird is the resident species around Pasadena.

Among the land-birds, I was surprised not to find any Song Sparrows, Horned Larks or Meadowlarks, all of which are more or less common on Santa Barbara and San Clemente Islands.

After collecting small birds for four days very successfully, and, as I was told by a tourist, robbing the landscape of half its beauty, I determined to start in robbing the water-scape. So, in the afternoon I boarded the "Fleet-wing" for a cruise out around Seal Rock to see what there might be in the line of water birds. I was very successful in shooting away some twenty-five shells, but rather disappointed in securing but one bird, a sickly loon. However, the fact that this loon was sickly, was rather of a blessing, for the bird was delightfully lean, and the skin did not require the usual amount of cutting and scraping necessary to remove the fat which is present in such great quantities on a normal loon skin. This trip, though not bringing many specimens, taught me one thing, that a noisy, wheezy, coughing gasoline launch is the last vessel to choose to hunt birds on. They almost all departed before the boat was within long range. Another thing, distances on the water appear a great deal shorter than they really are. One member of our party persisted in shooting at shags which were fully 150 yards distant when he declared they were within fifty yards. Shags are hard to kill, anyway. Seventy-five shells were fired and two birds dropped.

On Wednesday, December 29, my friend, Mr. Ferguson, came over to Avalon, and we decided to take a trip after water birds the next day. We secured a very neat looking round-bottomed boat, with two pairs of oars and row-locks, and just big enough for two. It had not been used for some time but the boatman assured us it would not leak. Accordingly we started early the next morning, but we had scarcely got beyond Sugar Loaf, before the boat was half full of water, more or less, and from that time on, we had to bail it out with a battered tomato can every few minutes. But such little things should not disturb an enthusiastic bird collector.

Before we had gone as far as White's Landing, I thought I discerned a stranger in the distance, and sure enough a closer view proved that we were in pursuit of a rare bird, none other than the Rhinoceros Auklet, with which this paper is supposed to mainly deal. With such a prize before us, we rowed for all we were worth, and soon were in fair range of it. A shot from a rocking boat at a target on the rolling waves, is not the easiest imaginable, and ours failed, or rather, the instant we fired, our Auklet disappeared in the water. We then rowed with "might and main" to the spot where the circling ripples told us the bird had gone down. We waited breathlessly with guns cocked. One of us was supposed to watch for him on one side of the boat, and one on the other, but after each had scanned his own horizon, neither would trust the other, and we really watched sharper on the opposite side of the boat than on our own. It was an exciting moment, for we had no idea where the bird would come up. After a full minute, we began to cool a little, and such conjectures were made, as that he was wounded and had dove to the bottom of the ocean and was clinging to the kelp. But presently, fully 300 yards away, ahead of us, peacefully rested our bird, apparently none the worse for being shot at, but with his eye on us. We, of course, pulled for him, but he was aware of our intentions by this time, and dove before we were anywhere within range. This time we rowed far ahead of where he went down thinking to meet him when he rose, but he must have been able to see the boat on the surface of the water, for he appeared far to our right. We went for him again, going to the spot where he disappeared and thinking that he might be getting winded. After waiting an unusually long time we happened to look back of us in the dark reflection of the Island, and there he was far away on the waves. He had doubled back diving right under us. We went cautiously toward him, getting rather close, but still too far for a shot before he disappeared. This time we thought it better policy to stay right where we were, hoping that he might try to double back on us again, and sure enough, in about half a minute he came up to our left, not thirty feet away, and two charges of No. 8 met him squarely, and we had bagged, or rather, carefully stowed in the collecting basket, our first Rhinoceros Auklet. We spent the rest of the day chasing Auklets, each time with about the same experience, but nearly always, if we stuck to it, finally getting our bird. We worked harder that day, than either of us had before for many months, as blistered hands testified, but I felt well paid, as the résult was ten fine specimens of the Rhinoceros Auklet, besides a couple of Am. Eared Grebes and a Pacific Loon.

The manner and pose of the Rhinoceros Auklet, resting or swimming on the water are quite different from those of any other sea bird met with around Catalina. It is short and chunky with head drawn in close to the body, leaving scarcely any tract that might be called a neck. The water line comes up to about the lower edge of the wings when closed against the body, so that the bird does not rest lightly on the water like a Gull or Phalarope. The head is held on the same line as the body directly out in front, so that the top of the head and back are on the same level. The whole bird at a little distance looks most like a block of wood floating on the water. We did not once see one flying. They all preferred to dive. One which was shot at and probably slightly wounded, attempted to take flight but failed to get clear of the water, and after dragging along the surface for several feet, instantly dove. The great ease and rapidity which is shown in diving and traveling under water is remarkable. When we showed a specimen to the boatman, he said that it was called a "fool-hen," because it would not get out of the way, but generally allowed a boat to run right over it. However I think the term "fool-hen" appropriate, for they certainly fooled us many times. We heard no note and there was never but one in sight at a time. They were mostly seen about a quarter of a mile from shore. The food consisted entirely of a small yellow crustacean, which filled their gullets. We saw none of these anywhere near the surface of the water, so they must have been caught by diving to a considerable depth. The water where the Auklets were feeding was from thirty to one hundred fathoms in depth. The Rhinoceros Auklet is probably a regular common winter visitant along our coast.

* * *

MR. A. P. REDINGTON writes from Santa Barbara: "While descending the road over the San Marcos Pass here recently, we came upon a Condor who allowed us to approach within fifty yards or so before taking wing. I opposed any attempt to secure the bird, thinking that the possibility of an egg in the future might be of more value than the skin. We can almost guarantee at least the *sight* of this species in a day's trip down the Santa Ynez range."

Prominent Californian Ornithologists. W. OTTO EMERSON.

MANY of the oologists and ornithologists of today will remember tenderly the time when the writings of the older field workers were read, like fairy tales, with an awe indescribable, and numbered among those who wrought these charms, is the subject of our sketch, Mr. W. Otto Emerson. Mr. Emerson, whose cordial manner and wealth of entertaining bird topics have ranked him as one of the foremost pioneer ornithologists of California, has spent twenty years in active field work at Haywards and along the coast, his work commencing about 1880, ten years after he came to California from his home sixty miles west of Chicago. Almost all of his notes were published in the *Ornithologist & Oologist*, to the columns of which magazine he was a popular and frequent contributor. Mr. Emerson later contributed to the *Nidologist* and will henceforth publish his notes in the Bulletin.

Two papers of special value were published in the Proceedings of the California Academy of Sciences, one on "Winter Birds of San Diego Co., Cal., in 1884, and "Birds and Eggs from the Farallon Islands" in 1887, edited by Mr. Walter E. Bryant. The latter paper comprised the first complete observations ever made on the Island bird life, eighty-one species or varieties being noted in the months of May and June 1887. During Mr. Emerson's field work he has taken ten birds new to the fauna of California and published over thirty papers. His present collection consists of 3,000 skins and 10,000 eggs, many with nests.

Mr. Emerson is now serving his second term as president of the Cooper Ornithological Club, having previously occupied other positions of honor in the Club and having been always one of its active members and supporters. Mr. Emerson is an ardent naturalist within the full meaning of the term, and has made photography as much a part of his collecting as the gun, while his note books, carefully kept for twenty years, contains a wealth of valuable notes on the birds of the coast counties of California. The Bulletin will soon print his list of the Birds of Santa Cruz County. His skill as a taxidermist, and his exquisite touch as an artist are not less pronounced than the other traits which mark him as a true naturalist. Only those who have known Mr. Emerson personally can appreciate his cordiality and he is today one of the most popular ornithologists of the Golden State. The portrait given is one of Mr. Emerson in his artist costume. C. B.

Nesting of *Hylocichla aonalaschkæ auduboni* in the Sierra Nevadas.

BY LYMAN BELDING, STOCKTON, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Mar. 4, 1899.]

THIS is the bird I named *Turdus sequoiensis* a few years ago, but as I neglected to send enough specimens to the Committee of the A. O. U. to convince them it was worthy of a new name, they finally "considered it to be identical with the Audubon's Hermit Thrush of the Rocky Mountains," and I suppose it so stands at present. By any other name it would sing just as sweetly.

It is the finest song bird of the Pacific Coast, breeding in many localities in the Sierras, on both slopes, usually choosing damp, densely-wooded localities for a summer home. It begins to sing about the middle of May at 5,000 feet altitude, below which it is seldom found in summer, and sings until about the first of September, when it leaves for warmer regions.

Altogether I have found seven nests of this bird; all of them were within a few feet of paths. They were mostly well-concealed, but one was the reverse, having been saddled on a fallen, dead, barkless fir sapling, with nothing to hide it except a few dead and leafless twigs. This nest contained four young which were quite fit to leave the nest about the middle of June. The eggs appear to be four or less. Three of the nests were in yew trees (*Taxus*), one was in a hazel bush (*Corylus*) and two were in deer brush (*Ceanothus*). The highest was about ten feet from the ground and the lowest about three feet. There was more or less moss (*Hypnum*) in all of the nests though the materials used in them varied considerably.

I hope this information will help ornithologists to find a few eggs of this very interesting bird and that they will forever afterward refrain from molesting this charming songster, to which I am indebted for many, many happy hours. Two photographs of one nest were kindly taken at my request, in 1898, but Mr. L. E. Hunt of Berkeley, Cal. The nest represented was built on a fallen cone of a sugar pine (*P. lambertiana*) which had lodged in a deer brush.

A Day With the Raptores.

BY ERNEST ADAMS, SAN JOSE, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Mar. 4, 1899.]

JUST as the messengers of Old Sol were speeding away toward the beautiful Santa Clara Valley, on the morning of April 12, 1898, I was urging my pony up the gentle grade toward Mt. Hamilton. Why I had decided to go in that direction I could not tell; I could not boast of *Buteos* I had taken in that vicinity, nor of *Bubos*, and when the thought of seeing eggs of the Golden Eagle *in situ* entered my head I cast it out, declaring that it belonged to only such fellows as Barlow and Taylor. I had grown careless of late; my Kites had failed me, my favorite grove for collecting eggs of the smaller birds had been cut down, and now my destination was perhaps as good as any I had in mind, though it was quite probable that Beck had been over the same ground only a short time before. And right here let me say if there is anyone who hopes to find his first egg of *Aquila chrysætos*, he must beware of this collector whose climbers mark many a tree east of here! I had to learn the lesson once though it cost me a fine set. I will not say how long I continued my delightful ride before hitching my horse and starting over the hills on foot, for that is one of those secrets that only oologists have.

April 18, 1896 I had removed from a newly constructed nest only ten feet in a small oak, one egg of a Western Redtail, advanced in incubation. On April 13, 1897 a friend found two young Horned Owls in this same nest and I was hoping to find the old bird there this year, but you can imagine my surprise when I beheld a hawk leave the nest and sail off in the air. The nest had been greatly enlarged and contained two fresh eggs. They resembled the one taken in 1896 but there are no distinguishing marks of identity, and I am yet undecided whether this old nest was occupied by the original pair of birds or a new pair. It seems altogether probable that they were the same ones which nested in 1896, though I am sure they were not there the following year. Passing on, I visited the hollow under a large rock and tree from which I took a beautiful set of two Turkey Vulture's eggs two years before, but there were no signs of its having been inhabited since. From an old nest situated in the hollow of an oak seventeen feet from the ground, I took a nice set of two Horned Owls measuring 2.13x1.81 and 2.13x1.85. Two nests of the Desert Sparrow Hawk were found, each about twenty feet from the ground in oak trees, one cavity containing four eggs, the other an incomplete set of two.

Then came one of those long tramps which you are led to take by seeing a mirage of most beautiful eggs, and though as you come to the top of each hill you swear you will go no farther than the next, you are led on and on until the sun, after repeated warnings, slowly sinks behind the distant mountains and night claims her own.

Woe to the person who meets the collector at this time if it has been an "off day" with him. But it was not quite as late as this when I seated myself on a rock at the top of my last hill and looked with longing eyes toward the next, beyond which I knew must be the best canyon in the country. I could not resist and hastened over. A Redtail catching sight of me left her nest with loud discordnant screams, and well she might scream for never again was she to see those three beautiful eggs, except perchance some day, mounted and holding an edified position over my cabinet, she may look down upon them through her glassy eyes as I show them to an interested friend. On and on I went until, coming out of a little ravine, I saw another hawk resting on her nest. She too, soon joined her mate on a leafless tree fifty yards away. Eagerly I ran to the tree but alas, it was a sycamore, its main trunk as devoid of limbs as a newly formed flag-pole. I looked down the canon perhaps in the hope of seeing Beck coming along with his climbers but I was alone. Setting my teeth in determination, I conquered the seeming impossibility, and there soon lay before me not two nor three, but four eggs of the Redtail, who was now dashing furiously at me. The eggs which are rather large and evenly washed with a yellowish brown color, are quite unlike any I had ever seen before.

Far up the canon was another nest and I was still some distance from it when the bird flew away. It was not a Redtail but a Golden Eagle. I had thought there was excitement in collecting eggs of the White-tailed Kite but they are not "in it" at all with the Eagles. I felt myself rising far above the amateurs and being set down with the Upper Ten! There was no more hesitation at climbing a sycamore, and I had soon traversed the intervening twenty-eight feet and was intently gazing upon three eggs of this far-famed raptore. The eggs are quite large, measuring 3.08x2.44; 3.08x2.44; 3.08x2.40. One is heavily marked with reddish brown and the other two are nearly covered with lavender intermixed with dark brown. Incubation, one week.

Although it has been proven that Eagles of this species sometimes lay a second time after being robbed, (*Osprey* II, 6-7, p. 84) notwithstanding the lateness of the deposition of these, (April 12), I am inclined to believe that it was their only set. The birds appeared to be an old pair and had lost a number of wing feathers. The nest was an immense affair and had probably been added to for a number of years. This ended my day's collecting, with which I was quite satisfied and as I hastened along over the hills, each star appearing in the darkened gloom above me seemed to whisper, "To be successful let not a hill remain between you and the next canyon, for it is the *next* in which the eagles lay and happiness reigns."

Nesting of the Water Ouzel.

BY J. M. WILLARD, OAKLAND, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 3, 1898.]

JOHN MUIR'S chapter on the Water Ouzel in his "Mountains of California" aroused a great interest in me when I found them nesting on Pescadero Creek. Pescadero Canon is in the heart of a great forest of redwood, spruce and pine which covers the mountains for miles on every side. The stream is of good size and the lower eight miles before it finds the sea is of easy slope. During the spring of 1897 and 1898 I made several trips to this creek and on May 23-24, 1898, nine nests were found.

When we awoke on the morning of May 22 it seemed that after raining almost all night, the clouds had settled down over the mountains, soaking the interior of the trees where the rain had failed to reach. We left our wheels at the mountain house and started afoot over the 18 miles of wet forest road which lay between us and a ranch where we were to stop. Once over the ridge we could see miles of great redwoods, while in the hazy distance was the second ridge, yet to be crossed before we reached the foot of the grade. Under a large bridge that crossed the stream was an Ouzel's nest which was examined by letting my companion down until he could reach it. The nest was incomplete, lacking the lining. The moss of which it was composed was still wet from the soaking the old birds had given it, for when they build a nest each piece of moss is soaked in the stream, the birds dipping it again and again.

Leaving the stream we started over the second ridge and reached Pescadero Creek. Here we found two more nests, both inaccessible, as they were placed under bridges over which the road passed. Both were finished and one contained young; the latter nest was at least thirty feet above the water and from below looked like a ball of green moss six inches in diameter. Beside it was a last year's nest, gray with dust that had sifted through from above. A great stratum of sandstone pushed out into the stream between these two bridges and on the up-stream side the rock rounded and then dropped straight into the rushing water. In a shallow cleft, overhung by a large cluster of ferns, was another nest. This cleft was parallel to the water, and about three feet above it, and its edges were so rounded that the nest had a very insecure base,–in fact, when I let my friend down by the heels to reach it, it fell into his hands at first touch. As this nest is typical I will describe it. In front it looked like a large ball of green moss, with a round opening in the middle about an inch and a half in diameter. The walls were of moss, two inches thick in front, but much thinner next the rock. A sparse lining of small water-soaked twigs was used; but sometimes the lining is of grass or is dispensed with entirely. The outer surface of the nest was roughly finished, looking like the moss-covered rock itself, while the inside was comparatively smooth. I climbed down to a rock in the stream nearly in front of the nest and but a few feet away. Immediately a bird flew from it and alighted on a rock, where, after courtesying a few times in the comical way usual with Dippers, she flew up stream and we saw her no more. This nest contained four eggs in which incubation was far advanced.

Last June I removed an empty nest from this identical location and on July 23, 1898, I found still another in the same place, also empty. All were identical except in linings, that of June 1897 being of grass, of May 1898, of twigs, while the nest of July 1898 had no lining at all. The following day we went over the mountains to another canon. Our first nest here was oval-shaped and placed on the shelf of a high, over-hanging cliff, directly above the water. As we approached, the parent left, she having been feeding her young. The broken egg shells had been pushed from the nest into the water where they could be plainly seen. I knelt on my friend's shoulders and he waded into the pool.

When I touched the nest the five young ones started up their clatter, and renewed it from time to time for nearly an hour. When the parents came back one went into the nest but flew away almost immediately and was soon followed by its mate. The nest was nine inches long by seven high, its opening two inches across; it was lined with soaked sticks. The young were dark-skinned and partially feathered.

Proceeding up the stream some 200 yards I saw another Ouzel with a large worm in her beak. She was very tame and allowed me to approach within ten feet. Then I sat down on a log while she stood on a rock in mid-stream, courtesying from side to side and twitching her tail. Soon she flew past me down stream to her nest on a moss-covered clay bank, about eight feet above the running water. It was not so well built as the others and more bulky. The young were nearly feathered, as one little fellow showed by crawling into the opening to look out. Almost half a mile down stream from this one, past the cliff nest where the parents were industriously feeding their babies, we found another nest. At this point in the canon the stream ran over bedrock for several hundred feet, at an angle of about thirty degrees. The water ran very swiftly in a natural sluice, worn out of the solid slate. This sluice was about five feet wide, close to a deep cliff, and on a shelf of this cliff, several feet above the foam of the stream, was an Ouzel's nest. Needless to say I did not disturb it as it contained birds.

At the foot of the incline just mentioned, the water struck a great rock, rebounded into the air and fell twenty or thirty feet into a large, deep pool. On either side of this pool the cliffs rose hundreds of feet, sheer on one side and overhanging on the other, stopping all passage down stream. On the farther side of the pool was a shallow cave above which another pair of Ouzels had built their nest on a projection of rock. The young must have been pretty well grown and kept up a great clatter. On returning to Pescadero Canon a boy showed me another nest of this interesting bird. This one was built in the roots of an upturned tree which the stream had undermined. The water flowed directly under and about three feet below the nest, which contained four fresh eggs. On July 20, 1898, I was again in Pescadero Canon and located still another nest in the roots of an old tree which had floated down stream and lodged under a great rock. There were young in the nest and at that late date they must have been nearly matured. Thus out of nine nests found May 22, 23 and 24, one had fresh eggs, one incubated eggs, one was incomplete and the others held young of varying ages.

* * *

Early Hummingbirds' Nesting.

With accustomed regularity the hummingbirds are found nesting in California soon after the dawn of the New Year. The severity or mildness of the winters affect them not at all and a walk in January will usually disclose one or more of the tiny creatures buzzing about the cypress trees where the early nests are more often placed. Mr. Walter E. Bryant records the first nest and eggs of *C. anna* for 1899, at Santa Rosa, Cal. January 28. On February 12 I collected a nest of two eggs near Mt. View, Santa Clara, Cal., in which incubation was well begun. The nest was in a cypress tree, built on a twig rather close to the trunk.

C. BARLOW, Santa Clara, Cal.

* * *

House Finches Again.

Experience has taught me that House Finches *may* nest anywhere. I have found them occupying nests of orioles, towhees, grosbeaks, cliff swallows, blackbirds and portions of hawks' abodes; besides tin cans, old hats and stove pipes and now I shall add hollow limbs. One bird entering the opening of a small cavity actually squeezed her way back for two and a half feet to sit on her eggs in total darkness. Another reared her brood in the deep cavity of a Californian Woodpecker in an oak while a third selected a similar hole in a telegraph pole. The latter contained six eggs. ERNEST ADAMS, San Jose, Cal.

Capture of a California Condor.

BY H. G. RISING, LOS ANGELES, CAL.

[Read before the Southern Division of the Cooper Orn. Club, Jan. 28, 1899.]

I WAS out on a hunting trip after deer, with a party of three Santa Monica boys and a rancher named Decker, who was showing us over the mountains. We had divided our party, and Decker and myself were together, while the others went in a different direction. We started before daylight and hunted until about 9 o'clock without seeing any deer. We decided that there was no use in trying any more that morning, and started for the cabin in which we were camped. When we came to the top of one of the rocky ridges, which we had to cross, we stopped a moment to get our breath as the climbing was rather steep. In front of us lay a very deep rocky canyon, and opposite the point on which we stood was a limestone cliff, about 175 feet high. The canyon dropped down in a succession of small waterfalls through an opening in this cliff. We were a little above the top of the cliff and consequently had a fine view of it.

While standing there I noticed an adult Vulture perched about twenty-five feet below the top of the cliff and showed her to Decker. We watched her a few minutes and then tried to scare her by shouting at her, but she would not take wing. We then threw stones at her but they all fell short, striking the cliff far below her perch. At last Decker proposed that I should shoot at the cliff near her but I declined, saying that he had better do so as his rifle was smaller than mine. I cautioned him to be careful not to hit her, and he told me that he was going to shoot to one side of where she sat. He raised his rifle and fired, and I was astonished to see her go tumbling and fluttering down the cliff. I turned to Decker and proceeded to remonstrate with him for shooting the bird, but he declared that he had not shot at her and did not understand how he had made such a bad shot.

I told him that, as he had killed her, I might as well try to get her skin but he said that it was impossible to get to the bottom of the cliff, as the falls above and below could not be passed without a rope. I intended to try however, so I started to get below the cliff so as to climb up. Meanwhile Decker went back to camp. When part way down the cliff I saw a young Vulture sitting on a narrow ledge about half way up the cliff, and off to one side of the gorge where the water came through. I then understood why the old bird would not leave. After a hard climb I at last reached the base of the cliff and there found the old bird with one wing crippled, but still full of fight. After a hard tussle with her, I at last succeeded in killing her by driving the heavy blade of my knife into her brain. She used her beak and claws with good effect and I would have been well scratched had I not had on heavy overalls and leather leggings. She also fought with her wings, striking a pretty severe blow. I found later while skinning her that she had been struck either by the bullet glancing, or by a splinter of rock, as the only wound she had was a severe bruise on the breast next the wing and the bone broken, while the skin was still intact. The bullet must have flattened out and had sufficient force to break the bone and still not break the skin.

After disposing of the old bird I thought that I would try and climb a little nearer the young one so as to get a better look at it. I climbed up the falls until opposite the ledge on which the young bird sat and was delighted to find that it ran all the way over to the fall, so that I could get across without much difficulty. I went across, and when I got nearly to the bird the ledge widened out to a width of about five feet. The young one immediately showed fight, and I found that if I tried to do anything with it on the ledge, that it would surely throw me over. So I poked it off with my rifle which I still carried, and it half flew and half fell to the bottom. I left my rifle on the ledge and went down the way I came, as fast as I dared climb. When I reached the bottom I found the young one on top of a big boulder that was about fifteen feet high. I climbed up a sycamore sapling, that fortunately was growing close beside the rock, and soon poked him off with a dry limb. By the time I had got down again he was across the canyon and hopping up the rocks on the opposite side, using both his wings and his feet. I started up after him and reached up and caught him by one leg, just as he was about to make another jump. He reached down with his beak for my hand, but I was fortunate enough to get hold of his neck with my other hand before he caught me. He struggled and flapped his wings and I had a hard time of it for a few minutes, but at last I managed to tie his feet with my handkerchief. I then tore the braid off the brim of my hat and tied his beak securely, getting two or three awful pinches before I finished. I then slung him over my shoulder, holding him by the feet, and started to climb up the canyon, leaving the dead bird and my rifle to take care of themselves. At last I got up over the falls, getting some hard tumbles meanwhile. Every time I had a particularly hard stretch to climb he would spread his wings and try to fly and would pull me over and down I would go to the bottom, and not as comfortably as I would have liked. However, I at last got him to camp and put him in an old chicken house, which was on the place. That afternoon one of the boys and I went back and brought the rifle and dead Vulture to camp.

The next afternoon I got him to eat some raw venison by putting a small piece on the end of a sharp stick. At first he would pick at it, but after a while he got tired and would only open his mouth and hiss. I then forced a piece of paper in his throat and he had to swallow it to keep from choking. After a little he began to understand that it was good to eat and then there was no further trouble about his eating. Inside of three days he would eat out of my fingers without offering to peck at me. I had more trouble in teaching him to drink but finally managed to teach him that also. He measured just eight feet across the wings when I procured him, and was probably about five months old. I captured him on the 25th day of August, 1898. He is growing right along, and seems to be in perfect health, and gives promise of becoming a very fine pet.

Nesting of the Wilson's Snipe in Utah.

According to most, if not all the authorities, this species nests in the north, but I have found them breeding in this locality in abundance and have taken their eggs for several years. They arrive early in April, as soon as the snow is off the shallow ponds and low lands, and their whistle becomes a familiar sound both during the day and in the evening. Nest building commences soon after they arrive and nests have been found from April 29 to as late as July 11.

The nests are invariably placed within a few inches of the water, either stagnant, or by the side of irrigating ditches or waste streams. The nest is composed of dry wire grass loosely laid into a shallow platform, though occasionally raised two or three inches above the surface of the ground. Occasionally they select for a site the top of a hummock, but usually the nest is flat on the ground and extremely difficult to find as the eggs and nest have the general appearance of the surrounding dead grass and rushes.

The eggs exhibit the greatest possible variation in markings and colors, a well selected series showing about the handsomest variation of any I have seen, unless it be those of the Sharp-shinned Hawk. Typical specimens are of a dull yellow background, shaded and overlaid with bold heavy blackish and brown markings. These markings are usually long in proportion to their width and form a "corkscrew" appearance on the shell, extending from the pointed end of the egg in an oblique right direction, and seldom straight toward the larger end. In some specimens the ground color is a bright yellowish shade in which case the markings are usually very bold and distinct; in others the markings are highly colored running through all the shades from rich sienna to deep brown and blackish. The bird is never shot here for game and breeds without molestation.

H. C. Johnson,
American Fork, Utah, Jan. 27, '99.

Coming of the Mockingbird.

BY W. OTTO EMERSON, HAYWARDS, CAL.

[Read before the Northern Division of the Cooper Orn. Club, March 4, 1899.]

MY first acquaintance with *Mimus* in the vicinity of Haywards was on Nov. 28, 1888 when one was seen feeding on late pears left in the trees. He had been making his home about the orchard for a month or more, singing cheerily every bright, sunny day and so far as known this was the first occurrence of the Mockingbird so far north as San Francisco, although it is a resident of Southern California, frequenting the orange groves. The Mockingbird was not seen about Haywards again until October, 1894 when he made his appearance in a winter pear tree beside the house. All through the clear days, of winter he could be heard singing gaily from the tops of the pear or large pepper trees, now and then mimicing and silencing all the other birds about the place, with very low, subdued notes.

As the spring days lengthened his song became stronger, and could be heard through all the dale, the neighbors each commencing to notice and to claim him. By the latter part of April 1895 he disappeared only to return in November, and quickly leave as though some duty called him. It was Nov. 2, 1896 when he next came and I have now grown to look for him as a regular wandering winter minstrel. He has become so tame as to take up his roosting place in a climbing Cherokee rose vine which runs over the rear gable of the house, close to a window at which is my work table. I could look on him as he came to his lodgings, which were always approached with a sharp outcry, while at other times he would announce it was roosting time by perching on the tall flowering spikes of a garden plant and crying out in a harsh clicking note which could be heard for several hundred feet. Then he would jump into the air, spread his black and white wings, and sail over the ridge of the house to his one favorite branch among the climbers, where he always sat facing the side of the house.

In the morning the same warning notes were given before he would leave the climber and after feeding early he would generally perch himself on the ridge of the house to salute the sun as it touched this point. Following a rainy day he would alight on the ground to feed on the worms which seem to come up after a warm rain. I have noticed that after eating his fill of the pink pepper berries he would go to rest on the house ridge and disgorge the hard kernels of the seed, as I have also seen the Cedar Waxwings do. My attention was first drawn to this by finding great numbers of seed kernels in the roof gutters, and on watching the Mockingbird one morning I noticed that the mode of throwing them out was by jerking his head to one side; this dislodged the kernels and the pulp of the berries was retained. The Waxwings come in May in large bands and fill themselves with these berries, flying then to orchard or creek trees where they sit puffed up in little brown balls, disgorging the kernels which later take root and grow.

In the spring of 1897 *Mimus* began to show a great deal of playfulness by chasing away the robins from the pepper trees and from about the house even down to the orchard, sailing at them with his flashing white-barred wings and tail, until all had left his grounds. At no time does he wander off the place nor has he brought a mate in returning each fall; perhaps he is waiting to see how we will protect him first, before venturing to set up housekeeping among the fruit orchards and gardens of this locality.

* * *

MR. H. C. JOHNSON writes from American Fork, Utah, under date of Jan. 22, that a snowstorm prevented him from a trip in quest of the breeding grounds of Clarke's Nutcracker, but he hopes to locate his prize this season, in which case BULLETIN readers will be regaled with an account of the trip, together with photographs.

Echoes from the Field.

Fall Notes from Haywards, Cal. On October 30, 1898 I noticed for the first time in this locality the Western Nighthawk (*C. virginianus henryi.*) It was flying southward high in air just after sun-down in long zigzag sweeping circles, no doubt feeding as it flew to a more inviting winter home. In nineteen years' observation at Haywards this is my first record of the Nighthawk. I am told they are common on the east side of the range in the San Joaquin valley. At Poway, San Diego Co., they occur commonly as spring migrants.

RED BREASTED NUTHATCH. (*Sitta canadensis.*) These Nuthatches made their appearance in scattering pairs among the blue gum trees, live oaks and almond trees. In the latter they seemed to find abundant food as I noted them busy picking into the nuts on September 3, 1898. They were common in the gum trees about the Oakland hills and in Marin Co., where I am told they were seen in large bands. This is their first appearance at Haywards since October 24, 1882.

WESTERN GOLDEN-CROWNED KINGLET. (*Regulus satrapa olivaceus.*) Observed feeding among the willows back of Oakland on October 22, 1898. Have not been noticed about Haywards since October 16, 1884.

TOWNSEND'S SPARROW. (*P. iliaca unalaschcensis.*) Have been unusually common this fall, coming into the gardens about the house and hedges but generally shy and keeping to the thick brush of the creek banks and canon sides. The earliest arrival in ten years' observations is for this season, September 25, 1898.

RED-BREASTED SAPSUCKER. (*Sphyrapicus ruber.*) Have seen an unusual number of this alpine species, a number having taken a fancy to a big blue gum (eucalyptus) tree in the yard, where, on warm sunny days, they would go to peck holes and suck the rich sap that flows freely in the cold fall months. One I found in a willow tree trying to get the best of a yellow jacket's nest, dodging back and forth either to get a mouthful of their stored sweets or the jackets themselves. Most of the fall birds have a darker colored breast than the spring plumaged birds which are bright scarlet. They arrive at Haywards in October and November and again in March on their way to the high Sierras.

MOUNTAIN SONG SPARROW. (*Melospiza fasciata montana.*) A pair of these Sparrows I took on December 16, 1897 among the dead bull rushes on the edge of a salt marsh below Haywards, forming a new county record. They are a form of *Melospiza* easily overlooked by most collectors, as also is *M. fasciata guttata.* The latter have been seen several times this winter. My records for Haywards have been March 10, 1880, November 23, 1882, October 28, 1883, January 18, 1888 and October 13, 1898. W. OTTO EMERSON, Haywards, Cal. Dec. 9, 1898.

Persistent Nesting of the Anna's Hummingbird. For several years an Anna's Hummingbird had reared her young in a cork elm in front of my home, and in 1897 I again welcomed her. On Feb. 16 the nest contained one egg but that night a heavy wind storm brushed it against an adjoining limb and the little home was ruined. March 10 the nest containing the second set of eggs situated about twenty feet from the first, fell into the hands of an eager collector. Weeks passed, and although the dainty song of the male was often heard from his favorite perch on a telegraph wire, the female could not be found. Imagine my surprise when on April 23 as I was passing down the steps, I saw the third nest not six inches from my head. I could not molest it, but unfortunately I am not the only collector in the world, and in a few days the eggs were gone, and yet the good mother was not disheartened for in a week she was carrying material for the fourth nest, which she was constructing on one of the previous year. This time four was the charm. The nests were all of similar construction, the first one, however, containing a number of feathers. ERNEST ADAMS, San Jose, Cal.

Notes on Lewis' Woodpecker. This woodpecker (*Melanerpes torquatus*) is interesting from the fact that it is neither a winter nor summer bird in this vicinity, but one of the most industrious foragers I have observed. Last summer there were but few acorns and I failed to notice a single bird though I am told that a few of them appeared but left immediately upon the advent of a spell of exceedingly warm weather. It is my belief that it was not the warm weather, but the lack of acorns that induced them to leave. This summer I observed the first bird during the last week in August and by the first of September they were observed by hundreds in one locality. From the diversity of size and plumage I am certain that the parent birds were accompanied by their broods. Their favorite resort is an eastern slope, wooded with white and live oak with now and then a bull pine and some clumps of underbrush, chaparral etc. Here there were acorns in abundance and the birds were numerous. They are now greatly diminished in numbers and less clamorous, but scattering birds may be seen in the hills, always haunting the oaks. The little Californian Woodpecker resents the intrusion and may often be seen sprinting after its big cousin, with malice in every movement. I am curious to know where the birds nest and if the acorn forms any part of their food, or whether it is the tender grub which induces them to such industry. Again I would like to know why these birds store up so much food and then leave it for other birds to eat, for certain it is that they are not here to eat it themselves. John M. Welch, Copperopolis, Calaveras Co., Cal. Dec. 18, 1898.

Notes on Audubon's Warbler and the Individuality of Eggs. In order to satisfy my curiosity, I shot a male Audubon's Warbler on Jan. 17 and placed the contents of its stomach under a microscope. I found that it contained, with the exception of a small black beetle, and a worm about one-half inch long, nothing but bits of grass. These warblers are abundant every year during the winter in this locality. They spend most of their time on the ground, feeding on grass in the orchards.

In further proof of the individuality of eggs, I have sets of eggs in my collection from two pairs of California Shrikes. Both pair nest within one-half mile of my home and I have taken eggs from each for the past five years. The eggs of pair No. 1 are smaller and rounder than the average specimens, and are very lightly marked. I have two sets in my collection from this bird. In No. 2 the eggs are all heavily marked. I have four sets of eggs from this bird and were it not for the set mark, an egg taken from one set and placed with the other sets from the same bird could not be distinguished.

Wm. L. Atkinson, Santa Clara, Cal.

Hylocichla Ustulata Oedica in the Sierra Nevadas. Mr. Oberholser in the *Auk* Jan. 1899 mentions Marysville as one of the breeding localities of his new subspecies,—*oedica*. I am certain the Marysville *ustulata* is a much better singer than that of Santa Cruz and other coast localities where I have heard it, or in any of the many localities in the Sierra Nevadas. By the way, it is rarely found above 4,500 ft. altitude on the west slope, but like several species it ranges up to nearly 7,000 ft. on the east slope. Some of these, as I remember them, are the House Finch and Bullock's Oriole. Our Yellow-billed Magpie seldom gets up to 2,000 ft. although the Black-billed Magpie gets up to at least 7,000 ft. I see one or more nearly every year at the summit of the C. P. R. R. At Truckee, Cal. and vicinity it is very common. Lyman Belding, Stockton, Cal.

Early Bird Arrivals for 1899. Violet-green Swallow (*Tachycineta thalassina.*) Observed Dec. 31, 1898. I thought this a rather unusual date to see a number of Swallows which I took to be this species, flying about in a violent rain and windstorm at Point Reyes Station, Cal.

Mountain Bluebird (*Sialia artica.*) Feb. 5, 1899. At Pinole, Contra Costa Co., Cal. I met with a large flock of these birds scattered all through a small valley of freshly-plowed ground. They were there by hundreds and any number could have been secured. When met with they were feeding in precisely the manner of a Sparrow Hawk; they would pause fluttering in one spot, suddenly swooping down on some insect and immediately resume another position as before, always facing a strong wind which was blowing at the time.

T. E. SLEVIN, San Francisco, Cal.

Oregon Vesper Sparrow in Alameda Co. On the afternoon of October 8, 1898 while coming over the foot-hills north-east of Oakland, I shot an Oregon Vesper Sparrow, *Poocaetes gramineus affinis.* It was an adult male; one from a flock of five that were feeding among some tall grass, growing between two stubble-fields. The flock was so hidden in the tall grass, that I saw none except my bird until I fired, when the rest flew up, and were soon lost over the crest of a hill. So far as I have been able to learn, this is the first Oregon Vesper Sparrow taken in Alameda County, although two weeks later, on October 22, '98 Mr. C. W. Randall took an adult female from the same field, and presumably from the same flock. November 5, again found me in this field after another Vesper Sparrow, but I was doomed to disappointment, for I could not find a single bird.

JOHN M. WILLARD, 2221 Elm St., Oakland, Cal.

American Crossbills in Alameda Co., Cal. For many years I have been on the watch for the Crossbill in this part of the San Francisco Bay region, having seen them on several trips in Santa Cruz and Monterey counties. The former county lies along the ocean shore and in an air line from this locality, so I have naturally expected to some day see a few stragglers appear. In the first part of January of this year, at daylight on two or three occasions I noticed a flock of thick-set, quick-flying, piping birds leave the tops of some tall gum trees on the place and fly away. One morning I saw them fly to the top of some tall poplars, where I went to make out the species if possible. I saw at once that they were Crossbills and were feeding on the buds. Later in the day they flew to a large gum tree beside the house, where, after some delay, I made them out with the glass and soon secured one. Another was shot from the top of a Monterey cypress where they had gone to feed on the seeds of the cones, as I found later, on skinning them. Of the two birds shot on Jan. 26, 1899 one was in a greenish-red plumage showing a juvenile and was very fat with the crop full of soft seeds of the cypress and eucalyptus. The other male was of a rich golden-green plumage, flecked with cherry-red, showing an immature bird. On Jan. 30, 1899 a male was found dead under the big gum tree, and which must have been wounded by a long shot taken at the flock in the top of the tall trees and died on the cold night of the 30th. This was a male in adult plumage of a purplish-red with a few yellowish and gray feathers showing in the throat. The body of this bird was very thin. The weather becoming milder in a day or so the Crossbills disappeared, no doubt for their breeding grounds in the pine forests. I saw them in pairs in January 1897 at Pacific Grove where they could be heard in the pine-tops feeding on the seeds of the cones. This was on the edge of a small pond back in the forest. I have seen them come to the water's edge to drink. So far as I can find data this is their first appearance in Alameda Co. and I should be pleased to hear from anyone in the state who has observed them.

W. OTTO EMERSON, Haywards, Cal.

Albino Dwarf Hermit Thrush and Western Robin. Jan. 12, 1899 being a cold windy day drew many birds about the garden to feed, and while watching them from a window, one attracted my attention by its odd plumage, looking as though it had just arrived from the snowy regions. On shooting it I found it to be a partial albino Dwarf Hermit Thrush. Three outer tail feathers on one side are pure white while those of the other side are only tipped. The secondaries of the wing on one side were white-tipped, also several scattered white feathers on the rump and back. It proved to be a female and quite fat.

On Feb. 15, 1899 what was my great surprise upon shooting a Western Robin from a pepper tree to have drop at my feet one flecked all over with pure white feathers, particularly on the red breast, giving it a beautiful effect. The white feathers seemed to be much worn on the edges as though cut. This proved to be a female in good condition. Many of the birds of the high Sierras have been driven down nearer the coast than usual this winter. Mountain Bluebirds have been noticed for the first time in ten years. They spend their time hovering on the wing much like the Sparrow Hawks, over the early-sowed grain fields near the Bay shores. Their last appearance was Nov. 1, 1889. Observed this year on Feb. 11, 1899. W. Otto Emerson, Haywards, Cal., Feb. 20, 1899.

California Clapper Rail in Alameda Co. It would be a wise move for the Supervisors of Alameda county to declare a closed season, or two successive closed seasons, on Rail. This is the only means of preventing this fine bird, now almost absent from our marshes, from becoming annihilated. The abundance of birds after two closed seasons several years ago demonstrated the wisdom of such a law. All the sportsmen I have spoken to on this subject are heartily in favor of a closed or much shortened open season. Time, trouble and boat hire are now wasted and even the dog does'nt see any sport in returning empty-handed after a tramp through the salt grass and sticky mud. D. A. Cohen, Alameda, Cal.

Western Evening Grosbeak in Santa Clara Co., Cal. January 2, 1899 there appeared within the limits of San Jose, Cal., a flock of Western Evening Grosbeaks, (*Coccothraustes vespertinus montanus*) one of which, a male, was procured.

Jan. 17, a friend brought me two more males for identification. They were shot from a small flock in an orchard three miles southwest of San Jose. The birds were fat and oily, their stomachs containing buds of trees. At this time the weather was warm and there was but little snow upon the mountains. So far as I know, this constitutes a record for Santa Clara county, it being the first recorded appearance of this alpine species in the valley. Ernest Adams, San Jose, Cal.

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The Myrtle Warbler in California and Description of a New Race.

BY RICHARD C. MCGREGOR.

THE Myrtle Warbler has been recorded as an occasional visitant along the whole Pacific Coast of the United States from San Francisco north, while its breeding haunts have been located in British Columbia, [1] and by Mr. C. H. Townsend [2] it was found breeding on the Kowak River in Alaska. Baird says "Stragglers were seen on Puget Sound and one was taken by Dr. Suckley at Fort Steilacoom, W. T. May 1, 1856." [3] The check-list gives it as "straggling more or less commonly westward to the Pacific." [4].

By Mr. Belding this species is recorded from the following localities: Willamette Valley, Nicasio, Alameda and Contra Costa counties, Haywards, Murphys, Stockton, Marysville and Summit. He also says "In fall and winter it (Myrtle Warbler) is not easily distinguished from Audubon's Warbler and being much less numerous than the latter, is likely to be overlooked in California." [5] In the middle west I find this warbler recorded from Boerne, South-western Texas, in spring; [6] Colorado, 9000 feet in spring; [7] South-eastern Dakota in spring and summer migration [8], abundant migrant in western Manitoba [9].

I have taken the Myrtle Warbler near Denver, Colorado during spring migration. During the past year Mr. T. J. Hoover has taken near Palo Alto about thirty warblers of which thirteen are easily recognizable as *Dendroica coronata*. the others being *D. auduboni*. Besides those collected by him, Mr.

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1. Belding's Land Birds Pac. Dist. 210. 2. Auk. IV, 13. 3. Birds N. Am. 272. 4. A. O. U. Check-list, 257. 5. Land Birds Pac. Dist. 210. 6. Auk. I, 121. 7. Ibid. II, 15. 8. Ibid. II, 278. 9. Ibid. III, 326.

Hoover has three Myrtle Warblers as follows: Berryessa, Beck; Sonoma, Feb. 2, 1897, Carriger; Battle Creek, Oct. 8, 1898, ♀ McGregor. From these records it seems that *D. coronata* is distributed throughout the territory west of the Mississippi. There is little doubt that a more careful examination in this region will place the Myrtle among our common migrant species.

The following MS. notes on the Myrtle Warbler as observed near Palo Alto, kindly furnished by Mr. Hoover are of interest in this connection: "Last spring I several times noticed a small black and white warbler which was at first referred to *Dendroica nigrescens*, but when secured, three examples proved to be *D. coronata* in which the spring moult was nearly completed. Two of these, male and female, were shot on April 10 in small bushes along San Francisquito Creek and one male April 16 near the same spot. Two others were seen April 9. Further observation may show that this warbler is a regular spring migrant, instead of accidental as heretofore recorded."

Mr. H. Ward Carriger of Sonoma, California has permitted me to incorporate his notes also in my present paper. Mr. Carriger says:

"Previous to the year 1896 I had never secured any specimens of this bird but found them quite common during that year. They were first noticed along a creek in the valley and it was their note which first attracted attention. I secured two specimens on Jan. 21, which appeared to be young of the year. After this date they were common and twenty or more could be seen whenever I visited the hills, where they seemed to stay more than the Audubon's. They were common in 1897, and at the present time (Dec. 1898) are as abundant as Audubon's. There is some difference in the call notes of the two warblers, but both arrive and leave together."

Having compared a fairly good series of eastern and western skins, I have found no difference in colors or markings between the two lots, but there is such a discrepancy in wing and tail lengths, both for males and females, that I believe the western bird may be recognized as having subspecific rank. I will therefore suggest that the new race be known as:

Dendroica coronata hooveri subsp. nov. HOOVER'S WARBLER.

Subsp. char. In colors and markings like *Dendroica coronata*, but with wing and tail much longer.

Type, No. 1988, ♂ ad. Coll. T. J. Hoover, Palo Alto, California, April 16, 1898. In summer plumage. Above bluish-slate, streaked with black; top of head more finely streaked; crown, rump and sides with patches of lemon yellow; superciliary stripe, eyelids, throat, belly, spots behind nostrils, two bars on wings and spot on inner web of three outer tail feathers, white; cheeks and lores, black; feathers of breast black centered. Wing, 3.00; tail 2.31; exposed culmen, .38.

Geog. Dist. Western United States, breeding probably in British Columbia and Alaska.

The presence or absence of yellow on the throat is quite sufficient to distinguish spring examples of *D. auduboni* and *D. hooveri*, but with fall or winter specimens this mark is not so evident, when the following diagnoses may be of help.

> Throat, yellow; white patch on wing; white of tail on inner webs of *four or five* outer feathers; a white spot on each eyelid; no white spot in front of eye; lores, bluish ash.
> *auduboni*.
>
> Throat, white; two white bands on wings; white spots of tail on *three* outer feathers; eyelids and a superciliary stripe, white; the latter often interrupted in front of eye; lores, black.
> *hooveri*.

None of these characters alone are enough to identify winter birds; all of the differences must be considered before passing on a specimen. The table of measurements shows the relative sizes of males and females of eastern and western forms. I have also given measurements of five males of Audubon's Warbler. No material from the middle west has been available for the present paper so that the eastern range of the new race remains to be determined. It will probably be found to intergrade with *D. coronata*.

I am indebted to Mr. L. M. Loomis for the use of birds in the collection of the California Academy of Sciences. This new form is named for my friend, Mr. Theodore J. Hoover, who collected the types and kindly placed his material in my hands for examination.

Locality.	Wing.	Tail.	Exposed Culmen.	Date.	Collector.	Number.	Collection of
California Males.							
Oakland	3 06	2 28	.34	Apr. 2, 1885			C. A. S.
Nicasio	3 07	2 34	.38	Apr. 12, 1879			"
Cloverdale	3 05	2 30	.34	Apr. 3, 1885			"
Sonoma	3 00	2 38	.34	Feb. 2, 1897	Carriger	1989	Hoover
Palo Alto	2 98	2 22	.39	Apr. 10, 1898	Hoover	1990	"
"	3 00	2 31	.38	Apr. 16, 1898	"	1988	" type
"	2 98	2 24	.34	Nov. 20, 1898	"	1998	"
Average	3 02	2 30	.36				
Eastern Males.							
Marlboro, Mass.	2 90	2 20	.37	May 6, 1884	W. E. Bryant		C. A. S.
" "	2 93	2 26	.32	"	"		"
" "	2 86	2 08	.37				"
Washington, D. C.	2 85	2 24	.34	May 10, 1886	C W Richmond		"
" "	2 87	2 13	.34	Nov. 30, 1888			"
" "	2 80	2 10	.32	May 13, 1888	"		"
" "	2 82	2 09	.37	May 2, 1890	J. W. Figgins		"
Waterloo, Ind.	2 95	2 20	.34	Oct. 15, 1894	J. O. Snyder	3151	Stan'd Univ.
Average	2 87	2 16	.35				
California Females.							
Nicasio	2 88	2 26	.34	Apr. 11, 1879			C. A. S.
Oakland	2 84	2 22	.33	Apr. 3, 1885	W. E. Bryant		"
West Berkeley	2 92	2 16	.34	Nov. 26, 1885	T. S. Palmer		"
Palo Alto	2 96	2 27	.39	Apr. 10, 1898	Hoover	1995	Hoover
"	2 77	2 16	.36	Mar. 20, 1898	"	1992	"
"	2 90	2 24	.36	Feb. 26, 1898	"	1993	"
"	2 84	2 28	.38	Apr. 4, 1898	"		"
"	2 92	2 24	.38	Apr. 10, 1898	"	1999	"
"	2 90	2 20	.34	Jan. 17, 1899	"	2000	"
Battle Creek	2 82	2 13	.36	Oct. 8, 1898	McGregor	1991	"
Average	2 87	2 22	.36				
Eastern Females.							
Marlboro, Mass:	2 83	2 08	.35	May 6, 1884	W. E. Bryant		C. A. S.
" "	2 72	2 06	.36	"	"		"
Natick, Mass.	2 72	2 02	.31	May 1885	E. J. Smith	7795	"
Washington, D. C.	3 02	2 18	.34	Oct. 8, 1888			"
Chester Co., Pa.	2 85	2 05	.36	May 11, 1894	H. Garrett	1980	Hoover
" "	2 79	2 07	.37	May 13, 1892	"	1981	"
" "	2 94	2 22	.35	Oct. 13, 1891	"	1996	"
" "	2 66	2 16	.38	May 11, 1894	"	1994	"
" "	2 68	2 09	.35	May 16, 1892	"	1982	"
Raleigh, N. C.	2 78	2 09	.33	Apr. 24, 1893	H H & C S Brimley	1983	"
Average	2 70	2 10	.35				
Dendroica auduboni.							
	3 00	2 18	.38	Apr. 10, 1898		1986	
Males taken at Palo Alto,	3 05	2 28	.40	"		1987	
by T. J. Hoover.	3 06	2 30	.35	"		1985	
	2 98	2 22	.39	Apr. 13, 1898		1997	
	3 09	2 25	.37	Jan. 4, 1899		1984	
Average	3 03	2 24	.37				

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When extra copies are desired, they should be ordered at the time of communicating the article.

Write plainly and confine your article to one side of the sheet.

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EDITORIAL NOTES.

We shall print from time to time, the portraits of well known Californian ornithologists, and as a commencement of the series Mr. Emerson's likeness appears in this issue.

It is so seldom that the veteran ornithological workers of California appear in print, that we present Mr. Belding's notes on the Audubon's Hermit Thrush in this issue with pleasure. The BULLETIN is also under obligation to Mr. Belding for a recent generous donation to the Club's publishing fund.

Commencing with this issue there will appear upon this page of the BULLETIN, the date upon which the paper is mailed to subscribers. This is done to give an actual date of publication to the contributions, for in the case of certain articles such as records or descriptions of birds and hitherto unknown observations on their nesting habits, priority is an essential feature. The BULLETIN wishes to protect the rights of its contributors in a matter to which we believe all scientific journals should give attention. No. 1 was mailed Jan. 14.

In keeping with the onward march of the protection of game, the sportsmen of Santa Barbara Co. have recently organized a county Game Protective Association, with the promise that it will enforce the existing State and County laws governing the unlawful taking of game and fish. Mr. Alfred P. Redington of Santa Barbara, one of the Cooper Club's active members, is secretary of the new organization and if all its members prove as active as Mr. Redington in the work, we venture to say a wholesome respect for the law will soon be inspired in those who hunt and fish out of season. The secretary writes: "We have the misfortune to deal with a class of vandals at the upper end of this great county who seem inclined to look at all such law and order, or any attempt to enforce it, as an outrage on the rights of an American citizen:" To which we add that the quicker these "citizens" are relieved of their "rights" in this direction the better. We wish the new organization in Santa Barbara county every success and hope it may stimulate the sportsmen of other counties to similar action for the necessity of game protection is becoming more evident each year.

As we go to press the *Bulletin of the Michigan Ornithological Club* reaches us in the form of a neat double number which completes Vol. 2 of this creditable publication. With this number Mr. Leon J. Cole becomes Editor-in-Chief with Percy Selous and Dr. Robt. H. Wolcott as associates. The Michigan Club is doing valuable, systematic work in its state and its *Bulletin* which affords a means of dispensing the results of the Club's work, merits the support of all. The *Bulletin* always presents an attractive appearance and a substantial table of contents, with many short notes, which cannot fail to interest the ornithologist. The BULLETIN reciprocates the compliments of its Michigan contemporary and wishes it all success for 1899.

We are happy to note that the *Osprey*, after some delay occasioned by its "migration" from New York to Washington D. C. and the necessity of a change of printers when the back numbers were well under way, is now almost even on its issues and will soon be on time each month with its wealth of bird news. With Mr. Fuertes as Art Editor we shall expect some nice things in the line of plates, although we could wish for nothing more than some of the surpassing bird groups he has given us during the past year. Under the editorial management of Dr. Coues some striking department features have been introduced. Current topics and reviews are handled under the caption "In the Osprey's Claws" in a masterly and impartial manner. While the *Osprey* will doubtless continue to show a full list of prominent contributors, we venture to say that Dr. Coues' able editorial management will attract many subscribers in itself. Many interesting articles grace the October, November and December numbers and the *Osprey* has the field it aspires to fill all to itself. That it will fill it most satisfactorily no one will doubt and we trust all Californians will accord it support.

The BULLETIN finds it necessary to issue twenty pages with this number, in order to dispose of a quantity of delayed material on hand. With eighty active members in the field, covering a large territory, our readers can feel assured of missing nothing in the way of news notes from the West.

This issue of the Bulletin was mailed Mar. 15.

Description of a New California Song Sparrow.

BY RICHARD C. MCGREGOR.

EXAMINATION of a small series of *Melospiza* from Battle Creek shows that there exist in the northern Sacramento valley two races of the Song Sparrow. Four examples sent Mr. Robert Ridgway were thus commented upon by him: "Three of those from Battle Creek are typical *M. f. heermanni*, by far the most northern specimens I have seen of that form, and proving, I think, that this is the resident form of the Sacramento basin, as I had already suspected. It is this form which breeds at Stockton. The fourth Battle Creek specimen is probably best referred to *M. f. guttata* although it is really an intermediate between that form and *M. f. montana* or possibly *heermanni;* much nearer, however, to *guttata*."

Since taking this specimen above called "intermediate", I have secured three song sparrows of similar plumage at Battle Creek and on reaching home I find in my collection two sparrows of a dark plumage, one from Enterprise, Butte Co., and the other from St. Helena, Napa Co. These six skins are easily distinguished from either *heermanni* or *guttata* and form the types of an undescribed race to which I give the name:

Melospiza fasciata ingersolli, subsp. nov. TEHAMA SONG SPARROW.

Subsp. char. Most closely related to *guttata* but darker and without rusty wash; spotting of lower parts tending more to streaks than to spots as in *guttata;* wing slightly longer. Entire upper parts, sides of head and flanks are darker and less grayish than in *heermanni.*

Type. No. 2222, ♂ ad. Coll. R. C. McG., Battle Creek, California, Oct. 19, 1898. Wing, 2.82; tail, 2.74; tarsus, .88; exposed culmen, .44.

Geog. Dist. Northern Sacramento valley, south in winter to San Francisco Bay.

Without a Nomenclature of Colors it is impossible for me to describe the absolute colors of the three forms; typical specimens of the new race are in no way to be confused with *heermanni.* From *guttata* it is distinguished by the much darker and browner dorsum, with centers of feathers almost black; crown stripe obsolete; entire plumage lacking the rusty or reddish brown which is characteristic of *guttata.*

Beside the Battle Creek skins four others seem worthy of mention.

No. 1564. Enterprise, Cal., Oct. 15, 1896. This bird is easily referable to *ingersolli* though not so dark on the back as are the types.

No. 1346. Saint Helena, Cal., Dec. 21, 1897. This is intermediate between *guttata* and the new form.

No. 1345. Saint Helena, Cal., Dec. 22, 1897. Very dark; markings of back almost obsolete; referable to *ingersolli.*

No. 1563. Sebastopol, Sonoma Co., Cal., Dec. 2, 1884. This skin is typical *guttata.*

Specimens from Beaverton, Or., have been used as representing *M. f. guttata.*

I take pleasure in naming this race for my friend, Mr. Albert M. Ingersoll of San Diego, California.

TABLE OF MEASUREMENTS.

	Wing.	Tail.	Tarsus.	Exposed Culmen.
M. f. guttata Beaverton, 5 skins	2.58-2.78 (2.69)	2.60-2.70 (2.67)	.84-.86 (.85)	.44-.47 (.45)
M. f. heermanni Battle Cr'k, 4 skins	2.64-2.75 (2.71)	2.66-2.78 (2.73)	.73-.80 (.77)	.40-.44 (.42)
M. f. ingersolli 4 skins	2.61-2.82 (2.72)	2.45-2.76 (2.65)	.82-.88 (.85)	.44-.46 (.45)

Official Minutes of Southern Division.

The January meeting of the Division was held on Jan. 28, 1899 at 403 Bradbury Block, Los Angeles, President McCormick presiding and Messrs. McCormick, Leland, Swarth, Wicks and Robertson present. Messrs. Wall and Warner of San Bernardino were present as visitors. The resolutions regarding the BULLETIN matter as drawn up by the Northern Division were approved and adopted. Resolutions respecting the death of J. Maurice Hatch of Escondido who died on May 1, 1898 were adopted as follows:

Whereas by the death of J. Maurice Hatch, the Cooper Ornithological Club of California has lost an able and efficient member, and one of its most devoted students of bird life, be it

Resolved that we extend our heartfelt sympathy to the members of his bereaved family and be it further

Resolved that a copy of these resolutions be enrolled in the minutes of this meeting; that a copy be sent to the family and that the same be published in the BULLETIN.

Mr. W. E. Tyler of Los Angeles was unanimously elected to active membership. The name of J. J. Schneider of Anaheim was proposed for membership. A bill for $1.15 for expenses was ordered paid. A paper entitled "A Day with the Raptores" from the Northern Division was read after which the meeting adjourned to meet at Pasadena February 25.

The Division met Feb. 25, 1899 at the residence of F. S. Daggett in Pasadena, President McCormick calling the meeting to order. Those present were F. S. Daggett, A. I. McCormick, H. S. Swarth, M. L. Wicks Jr., F. Reiser, Chas. Groesbeek and Howard Robertson. The minutes of the previous meeting were read and approved. J. J. Schneider of Anaheim was elected to active membership. The following papers were read: "Summer Resident Warblers of Arizona" by O. W. Howard and "Capture of a California Condor" by H. G. Rising. After general discussion the meeting adjourned to meet at Mr. Grosbeek's on March 25.

Publications Received.

Auk, XVI, No. I. Jan. 1899.

Bird Lore, I. No. 1, Feb. 1899.

In the initial number of his charming publication, Mr. Chapman has made good the guarantee of his prospectus, and presents to the public just such a magazine as every bird lover will delight in. The leading articles "In Warbler Time" and "The Camera as an Aid in the Study of Birds" cannot fail to interest those who would be close communers with Nature, while the illustrations amply fulfill our expectations. In fostering the work of the Audubon Society and in promoting a general interest in the birds and their protection, *Bird Lore* deserves the support of every lover of nature.

Bulletin of the Michigan Ornithological Club II. Nos. 3-4. July-Dec., 1898.

Journal of the Maine Ornithological Society 1, No. I, Jan. 1899.

The Maine ornithologists have reached the conclusion that to work successfully an official organ is required, which shall be devoted solely to the interests of their Society. Accordingly the initial number of the *Journal* has been issued, and with the names of such well known workers as Ora W. Knight, C. H. Morrell and others at the head, we cannot doubt that it will represent well the ornithology of the great state in which it is published. The initial number contains a report of the Society's annual meeting with several excellent papers which were read. We wish the new publication success and a substantial increase in its pages at an early date.

Maine Sportsman, VI. Nos. 66-67, Feb.-Mar., 1899.

Museum, V. Nos. 3 and 4, Jan., Feb. 1899.

Oologist XVI. Nos. 1 and 2. Jan., Feb. 1899.

Osprey III. Nos. 2, 3 and 4, Oct.-Dec. 1898.

Wilson Bulletin VI. No. 1, Jan. 1899.

Expedition off for the Tropics.

On February 25 there sailed from San Francisco in the schooner *Stella Erland* as extensive an expedition as has recently visited tropical waters. The expedition has ornithology chiefly in view and is under the command of Mr. A. W. Anthony, the well known worker of California. Those accompanying him are H. B. Kaeding, Chase Littlejohn and R. H. Beck, ornithologists; R. C. McGregor, icthyologist; J. M. Gaylord, botanist; Geo. Spencer and Chas. Jones, assistants and Arthur Whitlock, steward. The expedition sails direct for Amapala, Honduras, C. A. where the Gulf of Fonseca will be carefully examined for specimens. Thence to Cocos Island and the Galapagos group. If time permits the party will then probably go west to Christmas, Fanning and Palmyra, returning home by way of the Sandwich Islands. Attention will be given chiefly to birds, fishes and plants, but marine invertebrates and mammals will also be collected. The expedition will be absent about eight months and with such an array of scientists we may expect some valuable work to be accomplished.

Mr. Wallace Homer, a member of the Maine Ornithological Society, paid the editor a pleasant call on Feb. 27 while en route to his home in Maine, after a pleasant visit through California.

Mr. O. W. Howard of Los Angeles is on his way to the Huachuca Mts. in Arizona, where he will put in the season collecting. He is travelling by wagon and has a good opportunity to thoroughly examine the country. He reports a set of Le Conte's Thrasher taken Jan. 30 at Indio, Cal; also a single Western Horned Owl's egg taken near Phoenix, Ariz. a short time since.

Mr. F. S. Daggett of Pasadena, who has been suffering from a severe attack of "grip" has entirely recovered.

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Summer Resident Warblers of Arizona.

BY O. W. HOWARD, LOS ANGELES, CAL.

[Read before the Southern Division of the Cooper Orn. Club, Feb. 25, 1899.]

LUCY'S WARBLER.

LUCY'S WARBLER is fairly common along the river bottoms throughout Southern Arizona, especially in the mesquite and willow thickets. The birds appear early in April and I found them breeding early in May, and took my first set on May 8, 1897, near Tucson. The nest was placed in a deserted woodpecker's excavation in a dead limb of a hack-berry tree, about fifteen feet from the ground. The nest was composed of fine straws, horse-hair and feathers and contained four fresh eggs. The eggs are pure white, with fine specks of red and brown over the entire shell, but thicker at the larger end.

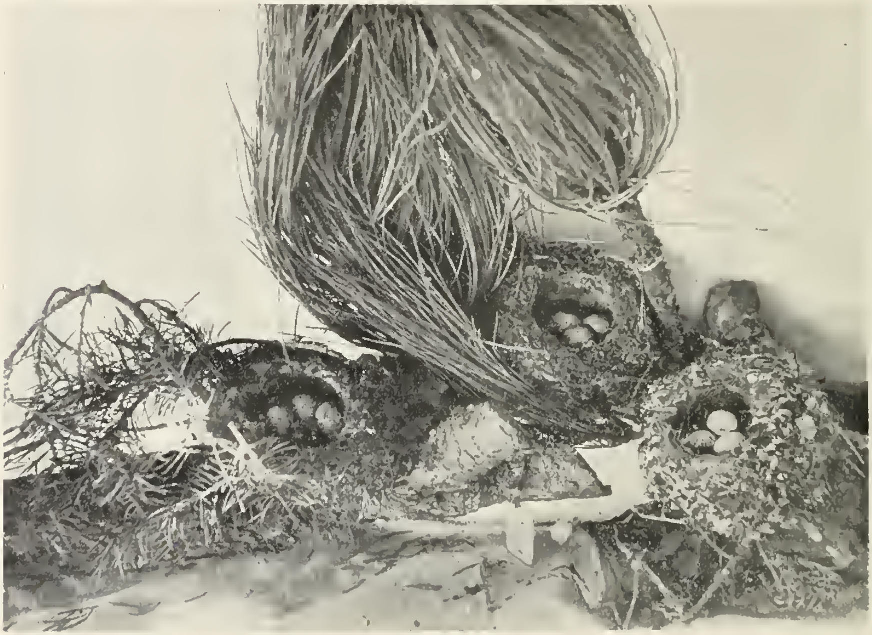
Another nest found May 9, 1897, was placed in a deserted Verdin's nest in a thorny bush about six feet up. The nest was destroyed by my enlarging the entrance and I was obliged to take the three fresh eggs which were probably an incomplete set. Other nests were placed in crevices along river banks where roots of trees were sticking out and one or two were found in natural cavities of the Giant Cactus, or in woodpecker's holes therein. But most of the nests were in mesquite trees, in natural cavities or behind pieces of loose bark, ranging in height from two to twenty feet from the ground, but as a rule they are within easy reach.

The nests are very frail affairs and are made of fine straws, vegetable fibres and leaves, with a lining of feathers and hair. The usual clutch of eggs consists of four or five, but quite often only three are laid and I have found two sets of seven each. The birds are rather wild and as a rule fly from the nest unobserved. Many nests are destroyed by wood-rats and snakes. I found several nests with incomplete sets and when I returned for them later, I found the nests entirely destroyed.

OLIVE WARBLER.

The Olive Warblers are not at all common and as they keep well up in the thick foliage of pines and firs comparatively few of them are seen. They can more readily be located by their note which is hardly describable, but when once heard is easily detected. The nests are very beautiful affairs and are built very much like those of the Blue-gray Gnatcatcher and are composed of bits of moss, lichens, fur blossoms and spider webs, with a lining of fine rootlets. The eggs are easily distinguished from any other warblers; the shell is olive-gray thickly covered with fine black specks, sometimes almost obscuring the ground color. I found my first nest June 12, 1897, in the Huachuca Mountains at an elevation of about 9400 feet. The nest was placed in a red fir tree in the fork of a large limb, about thirty feet up and was well hidden by the surrounding foliage. The bird was away from the nest when I found it and did not make her appearance until I had three of her well incubated eggs in my mouth and was reaching for the fourth. I cut off a portion of the limb with the nest and made my way to the ground. After packing my treasures, which I was more than delighted over, I secured the female with a charge of dust shot and made haste for camp.

On June 15, 1898, I found a nest with young almost ready to fly. The nest was placed in a sugar pine near the extremity of a limb and about thirty feet from the ground; elevation about 9000 feet. The female was on the nest and as soon as I climbed the tree she uttered a note of distress which soon brought the male to the scene, where he joined her complaint. The notes of the male and the female are very much alike. Another nest found June 18, 1898, was placed near the extremity of a long slender limb in a yellow pine about fifty feet up. I watched the bird for fully half an hour before finding the nest and it was only with great difficulty and risk that I secured the set of three slightly incubated eggs. The nest was surrounded by pine needles and it could not be seen even from the tree in which it was situated until I was within three or four feet of it. The bird sat very close and did not leave the nest until I had cut off the limb on which it was placed and then she hopped about within four or five feet of me. The male was also near by and both birds kept up the usual note of alarm. The nest is a beauty, being covered with a wide brown material supposed to be bits of fur blossoms and is lined with fine rootlets.



NESTS OF THE OLIVE WARBLER.

Collected by O. W. Howard.

On June 24, 1898, accompanied by a young assistant, I left camp before sunrise as I had several nests to examine four or five miles distant, and being anxious to reach my destination we just hit the high places along the way. It was a beautiful, clear morning and we had a magnificent view of the country as our trail led along the summits of the mountains for some distance. We could see one hundred miles in any direction, with Mexico on one side of us and the United States on the other. Mountain ranges seventy five miles away did not seem more than twenty-five. After walking for an hour or so we came to my first nest, a Grace's Warbler, together with which I secured a fine set of three slightly incubated eggs and the parent bird. After packing the eggs and the bird we went on until I found a nest of Coues' Flycatcher from which we secured a fine set of four eggs. Next came an Audubon's Warbler's nest which I had found building the week before. It was situated near the end of a long branch in the top of a red fir tree about sixty feet up. While trying to secure this nest I heard an Olive Warbler not far off and soon after I observed a fine male in the branches above my head.

While watching him the female made her appearance and soon after went to her nest which was placed on a large limb of the same tree and not far from the trunk. It was quite a temptation to examine this nest first, but as I had already tied the rope from the limb which held the Audubon's nest to the main trunk above, I thought I had better finish the job, so I crawled out on the limb and with one hand on the rope I reached out for the eggs with the other, but just as my fingers touched the nest the limb broke off short between myself and the trunk and left me hanging by the rope. I lost the set of Audubon's Warbler and came near losing my life with them, but I managed to get back to the trunk of the tree all right and a few minutes later I had forgotten all about it, as I reached out and took the four perfectly fresh Olive Warbler's eggs from the nest above, one by one. I also secured the female and the nest with a large piece of the limb. I know of only one other set, besides those taken by myself, which was taken, I believe, by Mr. Price of Stanford University some years ago and which is now in the Smithsonian Institution.

SONORA YELLOW WARBLER.

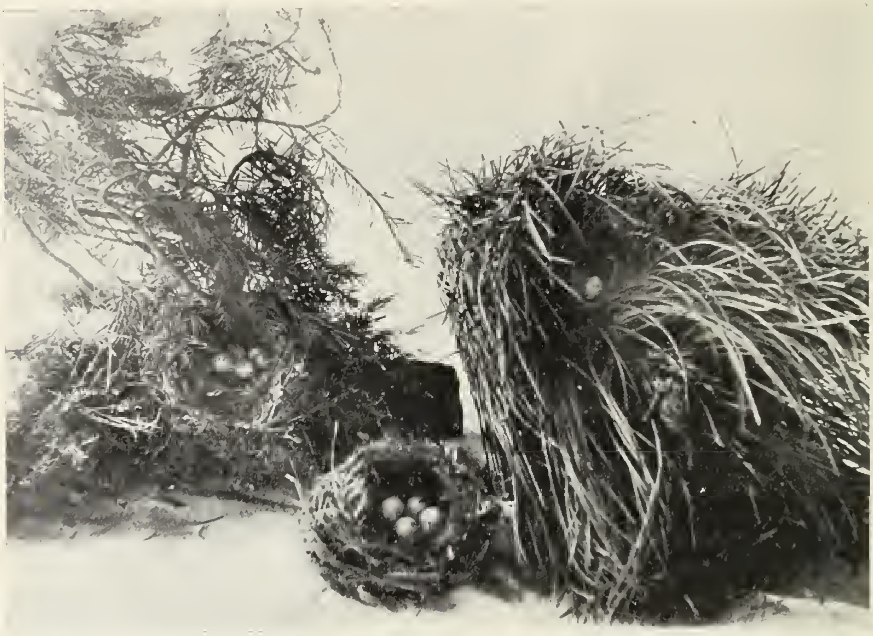
I found this variety, or rather subspecies, along the San Pedro River, near the Mexican Line and also near Tucson, but had a better chance to observe them along the San Pedro, where I found several nests placed in willow and mesquite trees, generally in upright forks from ten to twenty-five feet up. The nests are very much like those of the Yellow Warbler, likewise the eggs. All the nests I found contained two eggs of the Dwarf Cowbird

GRACE'S WARBLER.

Grace's Warbler is equally as rare, if not more so, than the Olive. During three seasons' collecting in the mountains of Southern Arizona I have seen only four or five of these birds, two of which had nests. They are very shy and, like the Olive, keep well up in the pines in the thick foliage, except when they have a nest and then they become quite bold. While walking along the summit of a ridge one morning about the middle of June, I came to a likely looking pine and began to look through it for general results. After stretching my neck for several minutes I spied a single straw protruding from a thick bunch of pine needles. This aroused quite a little suspicion in my mind so I laid down my climbers, collecting-box and gun and tried to look into the bunch of needles, looking from all directions, but could not see any other signs of a nest. I could have easily climbed up and made sure, but it was soon after breakfast, and I knew that I would have a great amount of climbing to do later on that day, so I picked up my traps and moved on, but had only gone a short distance when I noticed a Grace's Warbler hopping about in a bush. While I stood watching, it flew to the ground and picked up some fine straws and carried them to the bunch of pine-needles, out of which I had seen the straw protruding. Needless to say, I was much pleased with my find. I did not go near this nest again for fear the birds might leave, but called around again on the 27th of the same month, and after a little trouble, secured the nest with a good sized piece of the limb, and a fine set of three eggs and the parent bird.

The nest was placed deep down in the middle of a large bunch of pine needles and was entirely hidden from view. I handed the limb to my assistant, who examined it closely for a minute or two, and then asked me where the nest was. He was much surprised when I told him that he held it in his hand. The nest was composed of fine straws and vegetable fibres, and was lined with a few hairs. The eggs are pure white, lightly speckled with reddish brown. I found another nest building in a red fir tree. It was placed in a thick bunch of leaves, at the extremity of a limb about fifty feet from the ground. I watched the bird building for at least a half hour and do not remember of ever having seen a bird work more rapidly. She carried material to the nest at least once a minute and kept this up from the time that I began to watch her until I left. I was obliged to leave the nest, being out on a vacation and my time nearly up, so consequently I had to return.

(To be continued.)



NESTS OF AUDUBON'S AND GRACE'S WARBLER.

(GRACE'S WARBLER TO THE RIGHT.)

* * * * * *

SEVERAL Cooper Club members will spend a portion of June in the high Sierra of El Dorado Co., Cal., where they will hope to make some interesting takes in the line of Hermit Warblers, Western Evening Grosbeak, Calaveras Warbler etc. The personnel of the party as at present arranged will consist of Lyman Belding of Stockton, Henry W. Carriger of Sonoma, John M. Welch of Copperopolis, H. R. Taylor of Alameda, C. Barlow of Santa Clara and Loren E. Taylor of Fyffe. Work will be done about Pyramid Peak and operations confined chiefly to the higher altitudes.

Spring Notes on the Birds of Santa Cruz Island, Cal., April, 1898.

BY JOS. MAILLIARD, SAN GERONIMO, CAL.

SANTA CRUZ Island is a long, narrow mountainous island lying south of Santa Barbara and distant 21 miles from the nearest mainland. Its length is 25 miles and its width varies from 1½ to 5 miles. The coast line is exceedingly irregular and precipitous, with very few portions of the actual shore accessible from the land side. The island is very rough and jagged, principally volcanic with ranges of hills and rocks in every direction, attaining in places an elevation of over 2,000 feet. It is broken by many canons, most of which are deep and the sides almost invariably steep. In spite of the heavy backbone of volcanic rock, quite a large proportion of the island is composed of grass and brush land, there being large open areas of grass and thousands of acres of impenetrable chaparral, together with great tracts of sage brush, sometimes intermingled with cactus. In places are numerous live oaks, varying in size from scrub oaks to noble trees. The open portions contained but few birds and most of the specimens collected were obtained by crawling up the bottoms of canons containing a little water, keeping a sharp lookout for cactus, into which birds when shot would often most exasperatingly roll. In regard to this vegetable abomination, while it exists only in certain areas it really seemed as if there were not a spot on the whole island where one could put a hand on the ground, kneel or fall down, without coming in contact with a piece of the stuff which had been rolled, blown or been carried there.

The first place visited was Scorpion Harbor on April 5, 1898, a small cove on the east end of the island. This little bay is the mouth of a narrow valley some miles in length, but which becomes in reality only a rocky canon about a mile and a half back from the shore. The ranch buildings–old adobes mostly–are situated 200 yards from the little beach at a point where the rocky hills appeared to almost close together, the valley widening immediately back of them. There seemed to be a sort of "draw" at this spot and the wind howled most of the time night and day. The landing was made about four o'clock in the afternoon and the first birds seen were House Finches and Rock Wrens (*Carpodacus mexicanus frontalis?* and *Salpinctes obsoletus*) quantities of the former, and quite a number of the latter singing most musically from the rocky sides of the gorge.

On the way over from Santa Barbara no sea birds were seen except a few Shearwaters, Western Gulls and some Cormorants, with an occasional Scoter. About a mile east of Scorpion Harbor is a large square-looking rock near the shore which is evidently a breeding place for the Gulls and Cormorants. The country within a mile or two of this harbor is mostly grass land, with little or no brush and but few trees, cut up by many canons and gullies with exceedingly steep sides. The tops of the adjacent hills and some of the more rolling slopes were the abiding places at this time of numerous Island Horned Larks (*Otocoris alpestris insularis*), some thirty of which were captured. From the fact that some of these birds contained eggs almost ready to be laid it was evident that they were nesting, but hours of patient search failed to reveal a nest. The birds would flush from small hollows, from the shadows of small rocks, tufts of grass, sides of trails etc., but no sign of a nest could be found. After most carefully exploring three localities in the neighborhood where the birds were very numerous, without success, I came to the conclusion that their feeding and nesting grounds were not the same, and the latter remained undiscovered.

Many Intermediate Sparrows (*Zonotrichia leucophyrs intermedia*) frequented the corrals and yards, but were mostly in a sadly moulted plumage, preparing for their spring migration. Some groves of eucalyptus trees planted further up the valley were the dwelling place of quite a number of birds common to the mainland, such as Allen's Hummingbird (*Selasphorus alleni*), Anna's Hummingbird (*Calypte anna*), Lawrence's Goldfinch (*Spinus lawrenci*), Arkansas Goldfinch (*Spinus psaltria*), Western Chipping Sparrow (*Spizella socialis arizonæ*), Western Flycatcher [which has been separated into a new species by Oberholser in the *Auk*, Vol. XIV, No. 3, July, 1897, and designated as *Empidonax insulicola*. This has not yet been allowed by the A. O. U. Committee. It was commonly heard on the island, but during my stay was very shy and seldom seen] and two pairs of Shrikes, one of which was building, while the other was already occupying a nest. This latter was inaccessible in a tall slim gum sapling and the bird would always slip off and disappear among the trees before more than a glimpse of it could be had. This Shrike has been separated by Mearns and stands in the list as *Lanius ludovicianus anthonyi*, Island Shrike, the type being taken from the Santa Cruz Island.

Naturally enough a sight of the Santa Cruz Jay (*Aphelocoma insularis*) was eagerly desired, but it was some days before one was seen. There were no Jays within a mile or two of this harbor but some were found where the first brush commenced on the steep hillsides toward the head of Scorpion Canon. In fact they were quite numerous among the brushy hills but were very difficult to approach, more from the nature of the ground than from their wariness, though they were here comparatively shy. Their harsh notes could be heard on all sides among the bushes, but seldom near enough to shoot. Two were taken at last in the canon, but all the rest that fell to my lot were captured at Laplaya. The notes of this Jay are much harsher than those of the California Jay (*Aphelocoma californica*), the screech being more like that of *Cyanocitta stelleri* and the bird much larger and of brighter and deeper plumage.

At the head of this canon an occasional Towhee (*Pipilo maculatus oregonus*) or a closely allied form, was heard and one taken, but they were exceedingly wild and difficult to obtain. Scattered all through the cactus, among the volcanic rocks in this part of the island, were numbers of Mockingbirds (*Mimus polyglottos*) singing most melodiously, while an allied form of Vigor's Wren (*Thryomanes bewickii spilurus*) could be heard piping away every few yards. This wren has been separated also by Oberholser but as yet provisionally. These birds were also very difficult to obtain as they mostly frequented the the very steep rocks among the cactus and when a specimen was shot at it was usually impossible to find it and often even to reach the spot where it fell. In fact only a few were taken, as at least two-thirds of those killed were not recovered. A few Dusky Warblers (*Helminthophila celata sordida*) were found in this part of the canon and several taken. Their note is much longer and stronger than that of the Lutescent Warbler (*H. c. lutescens*) and has two more and louder notes at the end of the trill. The song of *Thryomanes* seemed to be also different from that of *T. bewickii spilurus*, for while the latter has quite a variety of actual songs, the Santa Cruz Island species has only one and this sounded somewhat unfamiliar.

While prospecting among the rocks an occasional Bald Eagle (*Haliæetus leucocephalus*) would swoop down near one though seldom within shot. In fact the only shot I could have taken was in a place so rough and so far from headquarters that it would have been a difficult undertaking to carry the bird in and its life was spared. A week was spent in prospecting and exploring around Scorpion Harbor and on April 12 the move was made for Laplaya, or the main ranch. There being no wagon road the trip was made on horseback, the baggage going by schooner. Owing to adverse winds the latter did not show up at Prisoner's Harbor for three days,—a rather unpleasant contingency. As it was to be a long, rough and hot ride—100° in the shade—even the gun was sent by schooner. However nothing was seen in the four hours' ride that was to be regretted, and in fact very few birds of any kind were to be found on the tops of the ranges. The trail led over and along the backbone of the island which in that part attains an elevation of 2,000 feet, with the sea hardly half a mile away on either side, with San Nicholas and Santa Barbara Islands in plain view in the distance. In some spots a stumble would have meant a sudden and permanent loss of interest in ornithological affairs, to put it mildly.

The main ranch, or Laplaya, is situated in a pleasant valley three miles north of Prisoner's Harbor, being connected with it by a wagon road along the bottom of the creek. The buildings face a magnificent range of volcanic mountains which are broken and rugged in the extreme. At this place birds were more numerous than at any other spot on the island. Here in the creek bottom were groves of very fine live-oaks with a small stream of water running through them, and many birds came down from the almost perpendicular hillsides to feed and drink here. Back of the buildings a range of impenetrable chaparral extended for miles, with here and there a trail cut through for driving sheep. This range is so steep and brushy that even with twenty experienced vaqueros only about one-half of the sheep occupying it are ever shorn and there are thousands of these animals roaming around with one, two or three years' fleeces on their backs, their long tails flapping behind them as they run, in a most comical manner. In this chaparral birds were very scarce, but along the edges were many Jays and a few Bush Tits, Dusky Warblers, Western Chipping Sparrows and Oregon ? Towhees, these latter so wild as to be unapproachable. Among the liveoaks, however, birds were numerous and an early morning tramp with a good deal of patience thrown in would generally be rewarded, though a dozen birds actually in one's hand by ten o'clock would be a pretty fair record, as it was not only difficult to get shots at what one wanted but also frequently more difficult to retrieve the game.

Dusky Warblers, Vigor's ? Wrens and many of the commoner birds already mentioned could be heard and often seen along the steep sides of the canon and to a certain extent among the big trees in the bottom also. In these thick live-oaks it was very hard to get shots at the small birds and many dropped only to lodge in some indiscernable or inaccessible bunch of leaves. In this locality the Santa Cruz Jay was very abundant and bold. Many were shot with the auxiliary barrel, being too close to use a larger charge. In some particular trees these birds would at times be very numerous, flying singly, by twos or threes, and then again hours might pass without a Jay being seen. Every accessible bush and tree within two or three miles of Laplaya was carefully searched for their nests, but, while many old ones were discovered, only five were found occupied. Two of these contained eggs, one set of three eggs and one set of four; two contained young, two fledglings in one nest and three in the other, while the fifth nest was placed near the end of a long slim branch of a large live-oak, with no means of reaching it. From the small proportion of new nests to old ones discovered, it would seem that either the birds were not breeding to any extent this year on account of the severe drouth perhaps, or else nests when once built must last in that locality about 100 years before disintegrating.

The Dusky Warblers and Vigor's ? Wrens were evidently breeding everywhere, but no nests were found and it is a mystery where the former found a place to build, as the sheep had cut everything clean from off the ground and as high up as they could reach on the bushes during the rainless spring. There did not seem to be any protected spots on the ground where these birds could hide their nests in security among low vines or ferns as is their usual custom. Occasional flocks of White-throated Swifts (*Aeronautes melanoleucus*) would descend from their homes in the mountain fastnesses and circle high in air over Laplaya, but only one specimen was obtained and their breeding place remained undiscovered. Shrikes were numerous in this vicinity and contrary to the evidence given in the July *Auk*, were not really wild. A few were lost by my not using a sufficiently heavy charge in my desire to preserve the plumage as intact as possible, but many of the specimens shot fell into the large piles of dead brush which they frequented extensively. On one of these brush piles three were bowled over at one shot and not one recovered. This pile was about six feet high and thirty feet across, the birds being in the center when fired at. While trying to find them, a nest of seven eggs was discovered and taken, but the birds had slipped down irretrievably. They must have been having some sort of a row over this nest when shot. Another nest containing six eggs of this species was taken and one or two found which were not completed when I left.

Song Sparrows, recently identified as *Melospiza fasciata graminea*, were frequently heard around the vegetable garden at Laplaya and often seen. This garden was surrounded by a very thick trimmed hedge of cypress which was the abiding place of these birds. A singular feature in connection with this sparrow was the fact that although shot as soon as they appeared in this garden, there would be two or three more in a day or so, and yet none were found anywhere else in the vicinity or on the whole island, except on a small creek some seven or eight miles from Laplaya, where one or two were seen. I was especially desirous of obtaining a number of specimens of the Towhee (*Pipilo maculatus* ———) of the island, but they were too wild and wary. Only one pair were taken.

Some species of birds that one would naturally expect to find here were absent, such as Bluebirds, Chicadees, Wren Tits, Thrashers and Brown Towhees. No Owls or Woodpeckers, excepting Flickers, were seen or heard, nor had even the oldest inhabitant any knowledge of the presence of an Owl on the island, by sight or hearing. There was evidence that the island was visited, probably in winter, by some species of Sapsucker. Hutton's ? Vireos were found in places among the live-oaks and several were taken. Their notes and habits were the same as those found on the mainland but they differed slightly from *Vireo huttoni* in shading and average measurements. House Finches (*Carpodacus mexicanus frontalis*) were exceedingly numerous in some localities, but with the exception of the flocks congregated about the buildings, were rather shy. Some were nesting in the vines around the house and barns but no completed nest was found by May 1. Mearn's description of a House Finch from the Santa Barbara Islands in the *Auk* (XV, July, 1898) includes some specimens from Santa Cruz Island. This has been acted upon favorably by the A. O. U. Committee and designated as *Carpodacus mexicanus clementis*. I took a number of House Finches in different parts of the island but found absolutely nothing that could not be matched in our collection from the mainland or in that of the California Academy of Sciences. Hence, if *C. m. clementis* is a resident of, or even a migrant to Santa Cruz Island, it must be of rare occurence there and the *C. m. frontalis* which is so much in evidence must migrate in large numbers from the mainland to breed.

Three Western Blue Grosbeaks (*Guiraca cærulea lazula*) were found just back of the house in some sage brush on the day before I left the island, Apr. 30, and two males were taken. They must have recently arrived but whether they were migrating through or had come to breed is a matter of conjecture. No females were seen. In the grain fields on the top of a high mesa, one side of which was washed by the sea hundreds of feet below, some small sparrows were observed, but it was impossible to capture one as they were unusually shy. They would flush at a long distance, fly into the grass on the unplowed portions and then run so that they could not be marked. They probably belonged to the *Ammodramus* group, though they seemed even smaller than any of this group with which I am at all familiar.

Following is a list of birds observed during my stay:– *Bald Eagle (*Haliæetus leucocephalus*); *Sharp-shinned Hawk *Accipiter velox*); *Cooper's Hawk (*Accipiter cooperi*); *Western Redtail, (*Buteo borealis calurus*) *Duck Hawk (*Falco peregrinus anatum*); *Desert Sparrow Hawk (*Falco sparverius deserticolus*); Red-shafted Flicker (*Colaptes cafer*); *Vaux Swift (*Chætura vauxii*); White-throated Swift (*Aeronautes melanoleucus*); Anna's Hummingbird (*Calypte anna*); Allen's Hummingbird (*Selas-*

phorus alleni): Arkansas Kingbird (*Tyrannus verticalis*): Black Phœbe (*Sayornis nigricans*): Western ? Flycatcher (*Empidonax difficilis*); Island Horned Lark (*Otocoris alpestris insularis*); Santa Cruz Jay (*Aphelocoma insularis*); American Raven (*Corvus corax sinuatus*); Western Meadowlark (*Sturnella magna neglecta*); *Bullock's Oriole (*Icterus bullocki*); House Finch (*Carpodacus mexicanus frontalis*); Arkansas Goldfinch (*Astragalinus psaltria*); Lawrence's Goldfinch (*Astragalinus lawrenci*); * ? Sparrow (*Ammodramus ?*); Intermediate Sparrow (*Zonotrichia leucophrys intermedia*); Golden-crowned Sparrow (*Zonotrichia coronata*); Western Chipping Sparrow (*Spizella socialis arizonæ*); Oregon Junco (*Junco hiemalis oregonus*); Santa Barbara Song Sparrow (*Melospiza fasciata graminea*); Lincoln's Sparrow (*Melospiza lincolni*); Oregon Towhee (*Pipilo maculatus oregonus*); Black-headed Grosbeak (*Habia melanocephla*); Western Blue Grosbeak (*Guiraca cærulea lazula*); Lazuli Bunting (*Cyanospiza amœna*); *Barn Swallow (*Hirundo erythrogaster*); Island Shrike (*Lanius ludovicianus anthonyi*); Hutton's ? Vireo (*Vireo huttoni ?*); Dusky Warbler (*Helminthophila celata sordida*); Audubon's Warbler (*Dendroica auduboni*); Mockingbird (*Mimus polyglottos*); Rock Wren (*Salpinctes obsoletus*); Vigor's ? Wren (*Thryomanes bewickii spilurus*); Californian Bush Tit (*Psaltria minimus californicus*;) *Dwarf Hermit Thrush [*Hylocichla aonalaschkæ*].

The species marked with an asterisk were seen but not taken. Those with an interrogation mark have been described but not yet separated by the A. O. U. Committee.

(Extract from a paper read before the Ornithological Section of the California Academy of Sciences, with some additions and alterations.)

A Successful Day with the Duck Hawks.

BY HENRY C. JOHNSON, AMERICAN FORK, UTAH.

[Read before the Northern Division of the Cooper Orn. Club, May 6, 1899.]

DURING May 1898 I happened to be riding among the foothills of the West Mountains in Utah, when, in circling the base of a precipitous cliff some eighty feet in height, a hawk of some kind suddenly launched into the air from a projecting point of rock. My friend pulled up his horse with the exclamation, "Duck Hawks!" A moment later we had tied the animals and flushed the female from her nest. Such an outcry did the old birds make and such a scramble did I have to reach the nest, as the face of the cliff was perpendicular and the trap rock was dangerously insecure for a foothold. Looking over the top of the ledge I saw three youngsters huddled together in a shallow cave under the over-hanging rock. This was enough and we left the locality with a mental memorandum that the nest would not be neglected by us in '99.

Thus it happened that Rollin and the writer might have been observed leaving town on two good mountain ponies on the 30th of March last. In circling Utah Lake we passed ponds on which were a goodly number of ducks of various species and Long-billed Curlew wading around after food. But Ducks and Curlew had no temptations for us on this particular day. When in sight of the ledge I pointed it out to Rollin who was making his first trip to the locality. He remarked: "Pshaw, is that your great cliff: I will jump from the top when we get there." I advised him to remember that the altitude makes a slight difference in the appearance of objects. Another hour of steady climbing and we neared the foot of the precipice, where Rollin postponed his jump as he did not think it possible to reach the top of the cliff!

No birds were visible but we tied up the horses and a stone thrown from where we stood, brought the female off the nest. The male also jumped from a projecting rock and we were greatly interested in watching the birds. They had the ability of remaining apparently stationary in mid-air without flapping their wings. Suddenly, however, one or the other would make a dash for us, just missing one's head in passing; no wonder, we thought, were they locally known as "Bullet Hawks." Rollin made the ascent and reported five fine eggs. Of course they had to be unpacked again when he got safely down and to us they looked much handsomer than they ever would in a large series, to the owner of which they would simply be known as a dark typical set. The eggs were laid in a little shallow on the ledge, without a straw near them and no nest was constructed. Again on horseback we plodded the weary miles homeward, with the crickets and frogs piping a march to which the Bittern furnished bass and of which the whistle of Wilson's Snipe overhead was treble.

Winter Birds of Shanghai.

BY MILTON S. RAY, SAN FRANCISCO.

[Read before the Northern Division of the Cooper Orn. Club, May 6, 1899.]

AFTER leaving Japan in February, 1898, at a season when birds were by no means numerous, I was surprised on arriving at Shanghai at the abundance of bird life. Along the Whang-Poo River, on which Shanghai is situated, water and marsh birds were almost as common as land birds are about the city. Excepting the Tree Sparrow [*Passer montanus*] the Mapgie [*Pica caudata*] or Rice-bird as it is called is the most numerous, and although the trees were yet bare, I observed several nests completed and a large number building. These nests were so common that scarcely a group of trees but contained one or more.

Along the muddy river the Black Kite [*Milvus ater*] was plentiful. A common sight is a dozen or more of these large birds resting between their day's labor on the cross cable or spring stay of the ships about the harbor. I observed one of these birds with a Tree Sparrow in its claws which it pulled apart as it flew along.

A bird of interest is the Ringed Crow. It is an odd looking bird with a broad white ring running around the neck and down across the breast. At times large flocks of Rooks, with a sprinkling of Crows, assemble in the grassy interior of the race-course in search of worms. The Crows are made conspicuous by their size and peculiar markings. Bubbling Well Road is the principal thoroughfare of the residence portion of the English settlement. Here in the large gardens, birds are very common. One morning as I was walking along this road, by a small stream, I came upon a pair of Eastern Kingfishers [*Alcedo inspida bengalensis*] I had hardly time to examine them closely when the one nearest me plunged almost perpendicularly into the water and emerged in a moment with a small minnow. This bird has beautiful dark blue wings and a rich chestnut breast. Further on I noticed on the lawn of a garden a pair of Masked Hawfinches in company with blackbirds, thrushes and pipits. These were the only Hawfinches I saw during my stay and was informed they are quite rare.

Passing on, my attention was attracted by a large flock of doves [*Turtus chinensis*] which so closely resembled our own Mourning Dove that from a distance they were indistinguishable. This dove has a white mottled patch on its neck and the tail is broadly tipped with white. Returning, a bright colored Titmouse flitted across the road and then a large Flycatcher left his perch in pursuit of an insect and I felt sad to think I would have to leave this rich field so soon. No doubt the abundance of bird life is accounted for by the protection they receive from the Chinese, whose religion prevents their wanton destruction. In Japan however it is just the opposite. I noticed in a Japanese taxidermist's more than 100 skins of the beautiful Kingfisher and an equal number of the brilliantly colored Wag-tails, beside a horde of Finches, Thrushes and larger birds. Of what use such large numbers of skins can be is a mystery to me. Aside from the wild birds, the bird stores of Old Shanghai are worthy of notice. Here thousands of birds–Canaries, Finches, Thrushes, Parrots, etc., are crowded in small wooden cages and the varied concert midst the squalor of a native Chinese city is a sight not easily forgotten.

IS THE UNLIMITED COLLECTING OF BIRDS IN BREEDING SEASON JUSTIFIED?

A COMMUNICATION.

To My Fellow Ornithologists:—

Realizing fully that in condemning a practice which, by reason of its having been followed by many of our best ornithologists, has assumed to many the garb of propriety, I am inviting criticism and perhaps caustic criticism at that, I lay before you a matter which has impressed itself upon me for three seasons past. What I have seen of bird slaughter (and it can be known by no other name) has placed me as unalterably opposed to collecting large numbers of birds during the breeding season. It is not my wish to attempt to arouse a senseless sympathy, such as has cropped out in too many of our magazines of late, with scarcely a fact to justify it in many cases. I have kindly feelings for those of the Audubonians who are working for bird protection in a practical way, but none whatever for those who rant and criticise the current journals because they print the bird news. The theorists are all right but as useless as the fifth wheel of a coach, so long as their theories are unexecuted, save on paper. I hope to be understood as not adding another to the already long list of empty pleas with which we have been afflicted of late.

The science of ornithology demands the collecting of any reasonable number of birds to further its ends, and personally I have taken the lives of birds with as much zeal as any, when the skins were desired for actual use. Furthermore I have always been a devotee of the gun rather than the opera glass in collecting, and am at the present time a recruit in what Dr. Coues has termed the "shot-gun wing" of the ornithological army. Therefore I may presume to write without prejudice against unnecessary bird slaughter. It seems but humane that where unusual numbers of skins are collected that the time should be during the spring and fall migrations or else in winter or early summer. No sane ornithologist can condemn the shooting of one or both parents to an occasional nest, if they be desired for identification or for the collection, but it would be needless, nor is it practiced, often. To such a status it would seem that extremists in both directions might agree.

My first insight into bird slaughter in the name of science was in 1896 during my stay in the Sierras of El Dorado Co., Cal. Two well known Californian workers were touring the emigrant road, having been sent out by a third ornithologist, and were allowed ten or fifteen cents per skin for such of the take as he could use. This was, of course, an incentive to collect everything in sight, which I must say, regretfully, was done. Each day these collectors roamed the woods and hills and every bird which had the confidence to present itself to view, paid for its temerity with its life. In the Sierras many species are typical, such as *Pipilo maculatus megalonyx*, and others which are not hoped to show any perceptible variation. Yet in 1896 species such as Cassin's Vireo, Spurred Towhee, various warblers etc. were collected without limit, as many as thirty to fifty of some being taken. Most of these were not collected for the personal use or study of either of the three interested parties, but to be sold for a paltry sum, if indeed at all, for after the trip over rough mountain roads and being packed away when "green" for weeks, many of the skins were poor and misshapen. This was the first slaughter in the name of science which I witnessed. Perhaps 500 or 600 birds had been taken from their haunts in breeding time, the collectors had unquestionably done much hard work in warm weather, while their return was very moderate financially. Doubtless they saw and learned much of nature and the birds, as both were active workers in the field, but the glory of their season's work has upon it a blot in the shape of unwarranted bird slaughter.

In 1897 another prominent Californian made an extended trip over the Lake Tahoe road of El Dorado County through the Sierras. He was accompanied at first by one and later by several assistants. This gentleman I count as a personal friend and a thoroughly able naturalist, who has the charm of enlivening camp life which few possess, and far be it from me to criticise his good nature or to disparage the value of his scientific work. But he waged the same heartless war-fare against the birds all through the summer and I will not venture to say how many birds were numbered in his collection when he left the Sierras, but certain it is that the number was in excess of all requirements or reason.

There are species little known, such as the Californian Pine Grosbeak and some others in the Sierras which no collector could be criticised for collecting on sight, but this idea of making a daily killing, shooting everything in sight be it sparrow, warbler, flycatcher, woodpecker or what not, simply to swell the number of skins of the season's work is gory and not compatible with the ideas which a conscientious ornithologist should hold. Many of these birds will never be used for comparison, for the reason that the plumages are constant as a rule in this zone, and many too common to be classed as desirable, will bring only a paltry price when sold. And I ask if it is not a very serious question whether any ornithologist may collect in such a wholesale and random manner and call it science?

Some may contend that only a comparatively small area of the country was worked over, but this does not alter the principle at all. I base my whole criticism on the proposition that if wholesale collecting is wrong, it is *doubly so* in the breeding season! It was during this time that most of this work was done. All the species were nesting and had either eggs or young, but no attention was paid to this as a rule. Birds were shot anywhere and everywhere without so much as a thought for the welfare of the nestlings and who can say how many young birds thus deprived of one or both parents died from starvation or exposure? This is not an overdrawn picture but what Mr. Carriger, myself and others witnessed daily for almost two weeks, and it went on for several months.

One ornithologist ? F. M. Nutting, who was in the party, found the nest of a Pileated Woodpecker in a pine stub, containing young, and promptly shot one parent. This he brought to our camp one Sunday afternoon, evidently proud of his prowess at having stalled a bird which had perhaps lost its fear through duty to its young, and remarked that he *should shoot the other bird when he went back!* What a damnable sense of decency, let alone humaneness! I ask should such irresponsible beings be permitted to roam the woods, with no more perception of conscience than to commit such brutalities? It was an outrage which I know was not sanctioned by his principal.

The ornithologist should be the birds' best protector, even though he must at times shoot them for study, but what shall we say when he goes among them in nesting time, shooting indiscriminately and leaving the young to perish? Every naturalist owes it to science to protect the natural beauties with which the Creator has blessed the earth, and how can the collector, with never a twinge of conscience, quiet the sweet voices of the woodland in a fashion little less than barborous, for pecuniary gain? I may be called a "sentimentalist" as a reward for these words, and if so I accept the charge willingly. Well may the man blush who has no sentiment or consideration for bird life when he is in the midst of it; he lacks the higher aspirations of the true naturalist.

In the fall of 1897 large numbers of juvenile Hermit Warblers were taken, amounting in number if I remember correctly to about 100. While the plumages may have been interesting such a series as this was scarcely justified, and I question if it could be attributed to legitimate science. I have painted the picture of bird destruction as I saw and know of it, and totally without personal feeling. That this letter will have the effect of preventing such collecting in the future I have no hope, but if it be the means of drawing a response from those I have criticised or of calling forth the support of others, my object is accomplished. One of the primary inducements of these expeditions is to secure collections of skins to sell, and upon this hinges all the wrong.

In speaking with a well known ornithologist recently, and while talking of bird slaughter, he was frank enough to tell me that he "collected for what was in it." I admired his frankness and respect him for admitting the point without argument. And how shall we meet such frank admission of wrong, if wrong it be? Better that a restrictive law be enacted, even though it inconvenience all, than for such unwarranted destruction go on. Without any attempt at embellishing these facts with sentiment or satire, in both of which my pen might but crudely serve me, I invite open letters on the subject. We shall be glad to hear any Californian plead justification with sincerity, if he has collected in this manner, and the BULLETIN will be open to all with impartiality who wish to further discuss this question. I believe firmly that the making of large collections during the breeding season should be prohibited, and that the mercenary part of it should be severely condemned.

C. BARLOW.

Breeding Habits of the Least Tern in Los Angeles County, California.

BY A. I. MCCORMICK.

[Read before the Southern Division of the Cooper Orn. Club, March 26, 1898.]

THE beaches of this county, from Santa Monica southward, afford excellent breeding grounds for numberless birds of this species. The coast consists mainly of low sandy beaches, extending back 100 to 200 feet from the water's edge. Back of the beach proper come low sandhills, interspersed with small valleys, and farthest from the ocean are the higher lands, covered with a thick growth of low sage and other shrubs, about 200 feet from the water's edge. Water on the one side and sage brush on the other mark the boundaries of the nesting grounds of Least Terns, most of which last year [1897] arrived from the south about May 10th. For ten days they remained flying high over the sea, seldom if ever coming within gunshot range. My first trip to the beach was made on May 25th, in expectation of collecting eggs of the Snowy Plover, not expecting to find the Terns breeding. Consequently I was surprised on entering the colony, to see numbers of Terns flying wildly about, uttering their shrill notes, indicating that nesting had commenced. The result of information thus conveyed was that my friend and myself at once began to search for their eggs.

So successful were our efforts that during the day we collected twenty sets of two eggs each. The first set taken was in a mere depression in plain sand, about two inches deep and four inches wide, 100 feet from the water's edge. This description answers for the average of all sets taken on this trip—the distance of the nests from the water varying from 75 to 600 feet. Set No. 2 was taken from a hollow in the center of a bed of gravel, lined with small fragments of white shells upon which the eggs were laid. This is quite common with the Snowy Plover, but exceptional with Least Terns.

My second and last trip to the beach was made on June 5, when I was fortunate enough to take fifteen sets of Least Tern's eggs. Six of them consisted of three eggs each. This is exceptional in this county. I have consulted several collectors who have had considerable experience with Least Terns in this locality, and with one or two exceptions two eggs has been the invariable complement found. Several other sets of three were taken in 1897. In all I took 25 sets last season, but could easily have doubled that number had I desired to do so. On each trip we left many nests containing one egg, and many new depressions ready to receive eggs.

All the eggs collected on the first trip were fresh, but many of those taken in June were much incubated. The Terns nest in colonies in common with Snowy Plovers, with eggs of which those of the Terns are often confounded. But upon close examination they can be easily distinguished; those of the Terns are more nearly oval, and the small end of the Plover's egg comes to a sharper point.

The ground color of the eggs of the Tern is lighter than that of the Snowy Plover's. The spots on the Plover eggs appear like scratches, while in the case of the Tern, the spots are more symmetrical and rounder, and harmonize better with the ground color.

The habits of the two birds during the nesting season are quite different. On one's entering the Tern colony, all the birds at once rise and fly swiftly about overhead, often darting at the intruder within a few inches of his head. They are the most pugnacious and saucy birds that I have yet met during nesting time. The female Snowy Plover often waits until one is within a few feet of the nest before she leaves it, and when she does hop off is generally unobserved. This Plover is a very quiet, unobtrusive bird, in fact, one might tread the beach for hours in the midst of these birds and not know of their presence unless particular pains were taken to ascertain it. Instead of rising from the ground and flying overhead like the Terns, on the approach of a person they run along the sand a few hundred feet, remain motionless for a short time, and then run on again. Their nests are almost invariably situated by the side of a stone, stick or some other object unlike the surroundings; this only occasionally happens with the Terns. The Plovers prefer to be as close to the water as possible, while the Terns are about evenly distributed back to the sage brush. Neither of the two species are so numerous as in former times on the coast of this county. Eggs of the Least Tern have been taken as late as July, but on the 30th no Terns were to be seen at Santa Monica, all having, I suppose, gone southward.

Capture of a Rabbit by a Golden Eagle.

BY WM. L. ATKINSON, SANTA CLARA, CAL.

BEFORE I begin my narrative perhaps it would be well to state that I live on a fruit farm, three and one-half miles west of Santa Clara. At the back of, and adjoining the orchard is an open field containing about sixty-five acres. One warm morning in August, 1894, I was working in the orchard near the back fence when, glancing up, I beheld two large birds circling and swooping at some object in the grain field. A second glance and I knew that the birds were Golden Eagles. Hastening to the fence I saw that the Eagles were endeavoring to catch a rabbit which was running across the field. He was at this time in the center of the field, and about 200 yards from the fence, toward which he was running.

The Eagles circled above him, at a height of about thirty feet; first one of them would swoop down at the rabbit and then the other; but the result was always the same, for the rabbit was quick enough to dodge just as the birds struck at him. The chase was now nearing the fence, and it seemed that if the rabbit could succeed in reaching it, he could, by dodging around among the trees, baffle his pursuers. The Eagles seemed to know this also for,

Drawn by Miss Charlotte Bray, Santa Clara, Cal., from a description.

when within fifty yards of the fence, the larger one of the two swooped down at the rabbit, and when he dodged the Eagle pursued him, flying at a height of about three feet above the ground. The rabbit redoubled his speed and made straight for the fence, the Eagle following and both doing their best; the one fleeing for his life, the other pursuing to satisfy the cravings of an empty stomach.

This unequal race was kept up until the fence was reached, the Eagle having gained until she was but two or three feet behind the rabbit. When the rabbit passed through the fence, I expected to see the Eagle give up the pursuit, but she had no intention of doing so, for without slacking her speed she raised herself just enough to clear the fence, and, dropping down behind the rabbit, continued as before. Still I thought that he had a good chance to escape, for he had gained a little ground in passing through the fence, but instead of dodging around through the trees, which is something the rabbit always does, when pursued by dogs, he was so crazed with fear that he ran in a straight line down through the orchard.

The velocity with which the Eagle flew at this stage of the chase was something wonderful. Fast as the rabbit ran, the "great black shadow" behind him drew nearer and nearer, until, poising an instant over its victim, the Eagle pounced upon him. A short struggle, a cry or two from the rabbit, and all was still. I hastily ran toward the spot, and had approached nearly to the Eagle when it took wing and joined its mate, which was wheeling around above me. After a few turns they mounted up into the heavens and in a short time disappeared.

The rabbit was a large "Jack," and was in a perfectly healthy condition. A row of deep gashes on either side of the backbone marked the spot where the Eagle had struck him with its talons, and his head was almost severed from the body, the throat being cut almost as cleanly as could have been done with a knife. The gash extended from the jaw bone on one side of the neck, to the ear on the other.

Echoes from the Field.

The Old-Squaw and Fulvous Tree Ducks at Alviso, Cal. During the first week in February of this year I received from Alviso, in this [Santa Clara] county, a specimen of the Long-tailed Duck or Old-Squaw, a female in winter plumage. So far as I know this is the first instance of this species being taken in this county, nor am I aware that it has ever been reported from any point on San Francisco Bay.

I have seen at the house of a friend in San Jose a Fulvous Tree Duck, also taken at Alviso several years ago. I believe that this species has not been recorded from this county before and is, at any rate, a rare visitor here.

F. H. HOLMES, Berryessa, Cal., April 15, 1899.

A Record for Los Angeles County, Cal. I have to report an addition to Mr. Grinnell's "List of Birds of the Pacific Slope of Los Angeles Co.," having taken four males and two females of *Loxia curvirostra minor*. They were working on the cones of pines along Lincoln Ave., Pasadena, and when disturbed by the report of a gun, were readily recalled by imitating the note of the female. Different members of the Club have looked sharply for this Crossbill among the pines on Wilson's Peak during the past few years without success, but now the dry year and consequent lack of food, brings them to our very door.

F. S. DAGGETT, Pasadena, Cal., Dec. 26, 1898.

Unusual Lining of a Red Bellied Hawk's Nest and Sonoma County Notes. On April 14, 1899 I secured a set 1/3 Red-bellied Hawk and was surprised to notice a nest of the Californian Bush Tit used as part of the lining of the hawk's nest. It was torn open about four inches from the bottom and as the shells of several eggs were stuck to the feathers inside, the Bush Tit's nest must have been taken from the tree by the hawks and torn open afterward. On April 7 the hawk's nest held two eggs but the Bush Tit's nest was not then a part of the lining.

During the winter of 1896 I saw what I supposed was a Mountain Bluebird, but not until last winter was I positive that *S. arctica* could be placed on my list of Sonoma Co. birds. On December 8 I saw two and they were common in January and February, and several were seen on March 9. They remained in large open fields and seemed to find plenty of food as a male shot on Jan. 18 was in fine condition.

In the March-April BULLETIN Mr. Slevin speaks of seeing some Swallows at Point Reyes on Dec. 31 which he took to be the Violet-green. I think the birds were Tree Swallows as I have never seen the Violet-green until late in February, while the Tree Swallow has been noted every month in the year. In winter they can often be seen flying about some warm springs along the foothills at the edge of the marsh off San Pablo Bay.

HENRY W. CARRIGER, Sonoma, Cal., April 16, 1899.

Eastern Junco and White-throated Sparrow in California. I have the pleasure to record the capture of three specimens of *Junco hyemalis* in California. The first, a male I took at Battle Creek on October 23, 1898. The other two were found at St. Helena, a male on the first of last February and a female three days later. Through the kindness of Mr. W. E. Bryant I may record four specimens of *Zonotrichia albicollis* for this state. One was taken at Los Angeles, Feb. 25, 1897 and is mounted in Mr. Bryant's collection. Three taken at Santa Rosa now belong to me. Dates of two are Oct. 13, 1898 and Nov. 23, 1898. The third one has not yet been forwarded to me. There appears to be no difference between these and eastern specimens of *Z. albicollis.*

RICHARD C. MCGREGOR, Palo Alto, Cal.

Notes from Alameda, Cal. WESTERN BLUEBIRD: For the last seven or eight years I have not met this never common bird as formerly. On frequent trips through the county and Contra Costa County in spring I have noticed from three to ten on each trip during the past five years and at times saw none at all. It is a sparse breeder in Alameda County. An acquaintance of mine took a set of eggs in this town about fifteen years ago.

The last Dwarf Hermit Thrush was seen, rather heard, April 6, a few miles from here. It was unusually common this winter. One made itself at home about my woodshed and became quite tame, eating grubs and bore worms when I was splitting wood.

Western Robins were very scarce up to January. In February they were quite abundant, singing freely. I heard one singing in December.

One Varied Thrush noted April 12, they have nearly all departed now. Observed the first one on Sept. 27.

A few Western Golden-crowned Kinglets wintered here in the live oaks and evergreens. I observed them occasionally from October to March. The Ruby-crowns were common, as usual, this winter, but not gregarious like the Golden-crowns.

On Sept. 27 I heard the "call" notes of a Russet-backed Thrush, and although the bird remained hidden, I knew I was not deceived by its indistinguishable voice. The late date is commentable.

Nuthatches are rarely observed any year. Perhaps they do not occur at all some years in this immediate locality. They were often seen this winter. A Red-breasted was the first one seen, Aug. 30. Took one Sept. 5 and one Oct. 10, and a Slender-billed Nov. 11. The last birds seen were in the middle of February. All the birds ever seen here were seen within a radius of 300 yards.

I have observed the Western Winter Wren here only several times. Took one Oct. 6.

Plain Titmice are fast disappearing and are growing quite uncommon. Further back in the hills is where civilization has driven them. Young were found in two nests April 8.

The American Pipit in winter appears to be as much at home in town as the urban English Sparrow. After a rain they can be found singly or in small bunches along the pavements in the densest part of town looking for worms.

Took a ♂ California Creeper Jan. 14, making the first one I ever saw in the county.

Parkman's and Vigor's Wrens are seen almost the year around. Last winter (1897-8) a Parkman's remained about my garden and the winter before last (1896-7) a Vigor's wintered near by. Neither species passed this winter here.

In January I took a ♂ Tule Wren from the salt marsh near here. Several of the crown feathers and one wing primary (secondary) were pure white.

Peculiar Eggs of California Shrike and Other Notes. In the San Joaquin Valley about twenty-eight miles southeast of Stockton, on May 23, 1898, I found two nests of the California Shrike in a grove of locusts near the road, both containing eggs partly incubated. One egg in the set of four is pure white, with a faint greenish tint, marked at the larger end with a black scrawl, and over the surface are a few obscure specks of light brown. The other three are typical specimens although one is lightly marked. The set (?) of two also contains an almost unmarked specimen.

On June 15, 1897 near Soquel, Santa Cruz Co., Cal. I took a nest of the Western Wood Pewee containing three fresh eggs. On examining the nest after reaching camp I was surprised to find two more eggs beneath the lining, in which the contents were partly dried. They differ much in size and color from the other eggs and do not seem to have been laid by the same individuals.

MILTON S. RAY, San Francisco, Cal.

Notes from Marin and San Benito Counties, Cal. In BULLETIN No. 2 are some interesting notes from different sections of the state concerning the appearance of birds unusual in the localities mentioned. It strikes me that it would be beneficial to the students of ornithology if such notes were supplemented by additional ones from persons who have been in position to make observations upon the species mentioned in different localities at corresponding dates, as this would assist very materially in studying distribution and habits. Accordingly I will endeavor to make a start in this line by adding my notes to those of the last issue.

RED-BREASTED NUTHATCH (*Sitta canadensis*). Mr. Otto Emerson speaks of these birds having appeared in Alameda Co. in September 1898 and mentions their occurrence in Marin County. At that time they were very abundant here, the first having been observed on Aug. 29 when two or three were seen. A few days later they were very numerous, frequenting almost altogether at this time the fir and cypress trees on the ranges. In October they became less abundant and toward the middle of the month were found feeding among the live oak trees, even in the valley near the house. By Nov. 1 they had all disappeared. This bird has never to my knowledge, been recorded in Marin Co. before. I saw a few in San Mateo on Nov. 6.

LEWIS' WOODPECKER (*Melanerpes torquatus*). These birds breed to a greater or less extent, seemingly depending upon the season, at Paicines, San Benito Co., Cal., where we have taken several sets. On the first of last October a large number of immigrants must have come in as they were far more numerous than those breeding there would account for by natural increase. My brother and I collected a beautiful series at this time of birds of the year in different plumages, some of which were exceedingly interesting.

AMERICAN CROSSBILL (*Loxia curvirostra minor*). At times these birds pass through Marin Co. in numbers, stopping for a short while to feed, often on the Tojon berries. As they are very shy and generally frequent the tops of the tall Douglas firs on the higher ranges they are difficult to obtain, but specimens have been taken on two occasions by C. A. Allen. Some years elapse without any being observed, but this does not prove that they have not been here, as their usual feeding grounds are seldom visited by any observer.

WESTERN EVENING GROSBEAK (*Coccothraustes v. montanus*). On October 14, 1898 a ♂ of this species was shot near Point Reyes Station, Marin Co., and sent to me. Their occurrence in this county has been reported to me before but as no specimens had been taken the reports were not verified.

MYRTLE WARBLER (*Dendroica coronata*). This bird is much more common in California than most people have been led to suppose. There are a number in our collection from Marin and San Benito counties, though we have only collected them casually. I have seen a good many that have not been taken and find that at close range they can be sufficiently recognized by the superloral and postocular streaks to enable one to be moderately accurate in identification. That is to say, if a person were to shoot all that he saw with this characteristic he would find the majority of his birds to be *coronata*.

SEX OF WINTER RESIDENTS. It would be interesting to hear from different localities in regard to which sex predominates in some of the winter residents. For instance, here at San Geronimo, nearly every Red-breasted Sapsucker (*Sphyrapicus ruber*) taken is a ♀ especially so in midwinter. All of the Ruby-crowned Kinglets (*Regulus calendula*) taken here have been males. Almost all of the Dwarf Hermit Thrushes (*Hylocichla aonalaschkæ*) also have been males, only three that I know of having proved to be females, one of these being a partial albino. We have several Thick-billed Sparrows taken here at different times and all ♀. These last are present some winters, but not all. How are the birds above mentioned in other localities? JOSEPH MAILLIARD, San Geronimo, Cal.

* * *

An Account of the Taking of Four Sets of Eggs of the Ivory Gull.

FOUR eggs of the Ivory Gull (*Larus eburneus*) were brought home by Gustaf Kolthoff, naturalist to the Nathorst Swedish Expedition in the summer and early autumn of 1898, having been received from Captain Kjældsen of the ship Frithiof in exchange. Mr. Kolthoff writes "When we were going from King Carls-Land to Franz Josef-Land we met on the way the steamer Frithiof, owner the old ice traveller Captain Kjældsen, who had been there with the Wellman Expedition. Captain Kjældsen told me that when returning and sailing close to the coast they had, near Cape Oppolzer on the S. W. of Franz Josef-Land in 80.04 N. latitude to about 57° E. longitude, visited a little, low-lying, unnamed island, situated very nearly south of Cape Oppolzer, upon which were breeding a large number of 'Ice Gulls' (Ivory Gulls). The nests were on the flat ground, built of green moss, and only in four cases was there still a single egg,—in all the rest were young, very small, half-grown and none so grown that they could use their wings. The four eggs were all strongly incubated. This was on August 4 and upon the 12th we met the steamer and I obtained all that Captain Kjældsen had—four eggs and one young bird. As I understood Captain Kjældsen the Wellman Expedition had left his ship before it visited Cape Oppolzer." Mr. Kolthoff adds "On the Spitzbergen and King Carls-Land coasts the Ivory Gulls had their nests on high cliffs where it is nearly impossible to reach them." Two of the above eggs are in the Upsalu Museum and the two others in my collection. The latter measure 2.29x1.69 and 2.25x1.68 inches.

A. W. JOHNSON, Waterside, Eng.

(The BULLETIN, though devoted to Pacific Coast ornithology, gladly gives space to the above notes on this rare and beautiful Gull. Mr. Johnson is a member of the Cooper Club, and is now enjoying a sojourn in his old home. ED.)

General News Notes.

TROPICAL EXPEDITION WRECKED.

The scientific expedition which sailed from San Francisco February 25 for tropical waters, as recorded in the March BULLETIN, met with disaster about thirty miles north of Magdalena Bay off Lower California, on the night of March 16, where the schooner was wrecked and deserted. Those comprising the party were A. W. Anthony (in command), H. B. Kaeding, Chase Littlejohn, R. H. Beck, R. C. McGregor, J. M. Gaylord, Geo. Spencer, Chas. Jones and Arthur Whitlock and the schooner carried a cargo of thirty tons of giant powder which was to be landed at Amapala, C. A. the first objective point of the expedition. Everything went smoothly until the night of the wreck; Mr. Beck was at the wheel about midnight, with the schooner running before a strong wind, when, without warning, it grounded on a sandy beach. At sunset the mainland was about fifty miles distant and the schooner's course was shaped to pass a certain promontory at fifteen miles to the seaward. No explanation for the wreck can be given further than the surmise that the schooner was caught by a strong current and carried shoreward. Almost all the specimens collected were lost, but most of the collecting outfits were saved.

The schooner was a total wreck and the absence of rocks alone prevented the ignition of the giant powder by the vessel pounding on the beach, for which the party was duly thankful. A cold and cheerless night was spent on the beach, with lamentable lack of raiment in some cases to face the cold wind and drifting sand. Mr. Beck tells of throwing everything possible overboard next day to drift in on the tide; finally several suits belonging to him were "hove overboard" but the tide had turned and they drifted out to sea! The party finally reached Magdalena, where the Mexican customs officials confiscated most of the salvage under various pretexts. The party later reached San Francisco by steamer. The expedition had just reached the tropics and Man-O'-War Birds and Caracaras had begun to appear. Duck Hawks and Ospreys were nesting on all the isolated islands and Mr. Beck relates the taking one morning by the party, on Natividad Island, of six sets of *Falco peregrinus anatum*. The nests were in small caves on the ground and on the tops of cliffs, quite unlike the difficult sites selected by the birds farther north. A number of fine negatives were lost. Sets of Xantus' Murrelet were taken on some of the islands.

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Mr. Fred A. Schneider Jr. of College Park, Cal., one of the four promoters of the Cooper Ornithological Club in 1893, was united in marriage on April 26 to Miss Charlotte Phillips, formerly of College Park but later a resident of Seattle. Mr. Schneider was formerly among the most active of Californian ornithologists, but for several years past a course at Stanford University has precluded active work in ornithology. He has long taken a prominent role in the Stanford Glee Club and is a member of numerous college fraternities and other social organizations. As a tennis player he has been ranked one of the champions of Santa Clara county. His pleasing manner has made for him a legion of friends who will wish him and his charming bride a full measure of life's joys. The marriage took place in Seattle and the couple will probably reside at College Park.

MR. O. W. HOWARD writes from Arizona: "While in camp about twenty-five miles below Benson on the San Pedro River (March 25) I saw a pure albino Great Blue Heron. It was flying around in a flock of fifteen or so, and to all appearances was as white as snow. I tried a shot at it at long range with my .38 Winchester but never touched him. I think the birds will probably nest down there for there were fifteen or twenty roosting in the cottonwood trees."

THE FARMER'S CLUB of Santa Clara County was addressed at San Jose on April 1 by W. Otto Emerson of Haywards on "Economic Ornithology." Mr. Emerson gave an excellent hard-sense talk which was illustrated with numerous bird skins and charts showing the structure of the bills of various species. Such lectures are of inestimable benefit to both the fruit-growers and the birds themselves, and a practical illustration of how the gospel of bird protection should and can be spread.

ERNEST ADAMS of San Jose will depart early in June for the Sierras of Plumas and Modoc counties, where he will spend several months working up the birds and mammals of this interesting corner of California. He will visit the Goose Lake region during his trip.

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Write plainly and confine your article to one side of the sheet.

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EDITORIAL NOTES.

Bird Protection Versus Sentiment. Apropos the wave of bird protection which has been sweeping through all ornithological journals of late, it is well to pause and analyze the motives of the several writers before wholly accepting their pleas, bowing our heads to grief and lamenting the wickedness of collectors at large. The person who has not trod the field from dawn till twilight, who knows nothing of the denizens of the woods and tree-tops, and who has never listened to the seabirds' cries above the boom of old ocean, cannot preach the doctrine of bird protection understandingly. Those who have delved into and grasped many of the delightful secrets which ornithology holds, and who are now urging a proper course in protective work, are worthy the thanks of every true ornithologist. Who can doubt the effectiveness of the work of Mr. Mackay in protecting the Terns on certain islands along the Atlantic seaboard, thus preserving a natural beauty? But those who are joining the wild rush simply to be an Audubonian,—to cry "bird protection" and then listen for the applause—all the while condemning legitimate science, are of vastly a different stamp.

The protectionist who would prevent the slaughter of a single bird is as rampant as the collector who thinks he would be justified in shooting every winged creature of the air. Many excellent pleas have appeared in various journals of late, the writers of which doubtless speak from the heart and wish to eradicate evils,—such as the "egg collecting scourge" as it has been termed—which have some foundation in fact. These writers have studied nature at her best and the birds have no better protector than the ornithologist himself if he be one of conscience, for the collecting of a *proper* number of birds does not imply brutality. But when some ambitious extremist sits himself down to rend apart the current magazines and even reference works, and makes careful note of every mention of a bird slain or a nest taken (over-looking, of course, the observations and spirit of the article in his zeal) and then within his narrow mind evolves a whining article of "bird protection," he has doubtless gratified his ambition and with folded hands and a sort of rapturous serenity may take his seat beside the faithful! His mission has been filled and the birds may hope for oblivion to swallow him up in so far as he will ever protect them. Such maudlin sentiment is hardly worth condemning and those who are really protecting the birds may well regret such additions to their ranks.

Real protection will be accomplished by the live ornithologists who have a practical mission to perform in this respect, but they may well hesitate to take hold of the work if its effectiveness is to be hindered and made nauseating by the misdirected energy of such persons as we have pointed out. That there are many skins collected today which the demands of science do not warrant, everyone knows. A remedy is needed, which, if it does not materially increase the birds, will at least leave many unslaughtered that annually pay the penalty to the over-zealous collector. Those who accumulate vast series of eggs will have to plead hard for justification, although the egg evil is not so wide-spreading as some have claimed. It is well known that almost every bird will lay a second time when robbed and rear a brood as successfully as if the first nest had been undisturbed.

The two really great evils are the collecting of birds in large numbers during the breeding season, when many young in the nest are sacrificed, and the unlimited collecting of skins for mercenary purposes. We cannot condone either offense, which rarely can justify itself, and the evil as it exists in California will shortly be aired in the Bulletin. Let us have bird protection in a practical way, without all the sentiment which does more than anything else to disgust the majority of well-meaning ornithologists.—C. B.

We are pleased to note that Mr. Robert Baird McLain of Wheeling, W. Va., who became a member of the Cooper Ornithological Club during his attendance at Stanford University, is actively pursuing his work in Herpetology since his departure from the coast. He has recently published three papers under the heading "Contributions to North American Herpetology." One, "Contributions to Neotropical Herpetology" gives a list of neotropical reptiles in the Stanford University Zoological Collection from Mexico, Panama, Colombia and Salvador. The second paper "Critical Notes on a Collection of Reptiles from the Western Coast of the United States" promises to form the basis of a corrected list which will be a guide for future students along this line, while the third paper is entitled "Notes on a Collection of Reptiles Made at Fort Smith, Ark." All the papers bear the imprint of careful work by the author, although the typography leaves much to be desired, but Mr. McLain may well congratulate himself upon putting forth such personal effort.

Bird-Lore for April comes promptly and, if anything, excels the initial number in contents and point of illustration. Typographically, as heretofore, it is without a flaw and will undoubtedly set the pace for ornithological journals in this respect for all time. The illustrations are such as every user of the camera and indeed every ornithologist may delight in. The frontispiece showing a Least Bittern on its nest and two half-tones of a Killdeer and nest, photographed from life, are notable examples of the possibilities of the camera in the field. The leading articles which treat chiefly of avian photography will benefit ornithologists who have photographic field work in view. The other articles are of a popular style, probably calculated to inspire in the "young idea" a proper reverence for the birds, all of which we hope may be effective, though we fear the inherent taste of the youth to "go gunning" cannot be so easily eradicated. Stress is laid upon the published accounts of certain egging trips, which are condemned, and we fear that sometimes any real merit or good intentions which the "condemned" may have possessed or shown in his article, are lost sight of.

The ninth supplement to the A. O. U. Check List, printed in the *Auk* for January, contains several new races of birds which have been accepted by the Committee on Classification and added to the check list, and which will interest Californians. Among them are *Oceanodroma kaedingi* ANTHONY, Kaeding's Petrel, "Socorro and Clarion Islands north to Southern California;" *Pinicola enucleator californica* PRICE, Californian Pine Grosbeak, "Higher parts of the Sierra Nevada, Central California;" *Carpodacus mcgregori* ANTHONY, McGregor's House Finch, "San Benito Id., Lower Cal."; *Astragalinus tristis salicamans* (GRINNELL) "Pacific Coast region from Washington to Southern California"; *Pipilo maculatus clementæ* (GRINNELL) "San Clemente Island, California"; *Harporhynchus redivivus pasadenensis* GRINNELL, Pasadena Thrasher, "Southern California"; *Harporhynchus lecontei arenicola* ANTHONY, Desert Thrasher, "Lower California."

Through the kindness and generosity of Mr. Lyman Belding, one of its honorary members, the Club has come into possession of a valuable MS. work, which, although unpublished, forms a companion part to Mr. Belding's well-known *Land Birds of the Pacific District*, dealing with the water birds of the same territory in a most comprehensive way. The bound volume consists of 246 type-written pages with an autographic preface by Mr. Belding, who states it was practically completed in 1886. He says: "The reversing of the Check List of the A. O. U. whereby the water birds came first in the list, instead of last as formerly, found me unprepared to give the time to the water birds that I needed, and supposing that the water birds would soon be needed for publication, I made a hurried compilation, finishing it in five or six weeks and this is the result." These notes, which form probably the most complete and valuable list of the water birds of the Pacific Coast yet undertaken, are largely compilations from different publications, and necessary interlineations have been made up to 1897.

The BULLETIN presents with pleasure in this issue a sketch by Miss Charlotte Bray of Santa Clara, drawn from a description. Miss Bray possesses genius as an artist and we hope to present other of her bird delineations in future issues.

Band-tailed Pigeon Nesting in Santa Clara County, Cal.

During the last four years I have found two nests of the Band-tailed Pigeon, both in Santa Clara county and within ten miles of San Jose. The nests were both found in oak trees in a comparative oak forest. The first was found April 19, 1895 and was built on a horizontal limb of a white-oak tree twenty-five feet from the ground and contained one squab about a week old. The parent was flushed from the nest and well seen. The second nest was found March 11, 1898 and was built near the end of a horizontal live-oak limb thirty feet from the ground and was just completed. Both nests were compact structures, composed of an outer layer of twigs, filled in with pine needles and lined with fine grass. There are no pine trees in the vicinity, and the birds must have carried the needles from a distance. The pigeons used to be very common in the winter time in this vicinity, but are quite scarce now because of the timber being cut down.

WM. L. ATKINSON, Santa Clara, Cal.

(Although the Wild Pigeon has never been recorded as nesting in the valleys of California, there seems to be no doubt of the above record being true. The locality in which they were found is heavily wooded with live and white oak timber, and has been a favorite feeding ground for this species for years, so it seems not improbable that a few stray pairs remained to breed.—ED.)

Official Minutes of Southern Division.

MARCH.

The Division met at the residence of Mr. Chas. E. Grosbeck in Altadena March 25, with Messrs. Daggett, Schneider, McCormick, Grosbeck, Simmons and Robertson present. Previous minutes were approved A bill for 90 cents was allowed the secretary. A bill for $1.25 for typewriting MS. was referred to both Divisions for payment. The name of Mr. Geo. S. Chambliss of Pasadena was proposed for membership. The matter of having a club crest as proposed by Mr. Emerson was adopted, the style, size etc. being left to be decided on by the President and Secretary after corresponding with the Northern Division. Adjourned.

APRIL.

The meeting of the Southern Division was held at the residence of Mr. F. S. Daggett in Pasadena April 29 with the following members present: Messrs. Reiser, Tyler, Daggett, Leland, McCormick and Robertson. Mr. Fordyce Grinnell and Mr. and Mrs. C. A. Moody were present as visitors. The minutes of the previous meeting were approved. A bill for $1.25 for typewriting was ordered paid. Mr. Geo. S. Chambliss of Pasadena was elected to membership. The names of Mr. and Mrs. A. C. Moody of Pasadena were proposed for membership. Adjourned.

HOWARD ROBERTSON, Division Sec'y.

Official Minutes of Northern Division.

MARCH.

The Division met March 2 at the home of H. C. Ward in Alameda with ten members present and Dr. Ingalls and Mr. H B. Torrey as visitors. The names of Wm. L. Atkinson of Santa Clara and H. B. Torrey of Berkeley were proposed for active membership. A bill for postage amounting to $1.24 was allowed the secretary. Southern Division minutes for January and February were read and filed. The following papers were read: "Capture of a California Condor" by H. G. Rising of the Southern Division; "Coming of the Mockingbird" by W. O. Emerson; "Summer Resident Warblers of Arizona" by O. W. Howard of Southern Division; "Nesting of Audubon's Hermit Thrush of the Sierras" by Lyman Belding; "Capture of a Rabbit by a Golden Eagle" by Wm L. Atkinson. W. Otto Emerson presented a sketch to be used as an electrotype for imprinting the stationery of Club members and official publications of the Club, the same consisting of a shield on which is figured a Californian Quail and an artistic hummingbird's nest and eggs, together with the name of the Club. This was adopted subject to the voice of the Southern Division. Adjourned.

MAY.

The Division met May 6 at the residence of C. Barlow in San Jose. Wm. L. Atkinson of Santa Clara and H. B. Torrey of Berkeley were elected to active membership. A design for a club crest as drawn by Mr. Emerson was finally decided upon. A bill for $1.29 current postage was allowed. The following names were proposed for active membership to be elected at the next meeting: Milton S. Ray, San Francisco; N. M. Flower, Copperopolis; Chester C. Lamb, Berkeley and E. V. Warren, Pacific Grove. A letter was read from R. C. McGregor, secretary of the State List Committee urging all members to send MS. of county lists. The work was commenced in 1895 and will now be pushed through rapidly by Mr. McGregor. Southern Division reports of March 25 and April 29 were read. A biographical sketch of J. Maurice Hatch, a deceased member of the Southern Division was read. Several papers were read after which the meeting adjourned to again convene at Alameda on July 1.

C. BARLOW, Division Secretary.

Publications Received.

Auk, XVI, No. 2, April, 1899.
Bird-Lore, I, No. 2, April, 1899.
Bulletin of the Michigan Ornithological Club, III, No. 1, Jan., 1899.
Journal of the Maine Ornithological Society, I, No. 2, April, 1899.
Maine Sportsman, VI, No. 68, April, 1899.
Museum, V, Nos. 5 and 6, March and April, 1899.
Oologist, XVI, Nos. 3 and 4, March and April, 1899.
Ornithologisches Jahrbuch, IX, No. 4.
Osprey, III, Nos. 5, 6, 7 and 8, Jan.-April, 1899.
Plant World, II, No. 7, April, 1899.
Wilson Bulletin, No. 25, March, 1899.

Mr. Walter F. Webb of Albion, N. Y. informs us that he has secured an egg of the California Vulture from California, taken on March 7 last, which is considerably earlier than the average nesting date.

Mr. Henry C. Johnson, whose contributions from Utah will be noticed in the BULLETIN, is an active member of the Cooper Club, having joined during his several years' residence in California, the Club's constitution permitting the retention of membership where a member leaves the state.

Mr. Frank H. Lattin of Albion, N. Y. graduated from the Medical Department of the University of Buffalo on April 25, and his numerous friends on the coast will wish him as bright a career as a *medico* as he has attained in the capacity of editor of the *Oologist*. The *Oologist* will doubtless be published regularly as heretofore.

Mr. W. Edgar Taylor of Ruston, La., announces the early publication of the *Gulf Fauna and Flora Bulletin* as a bi-monthly of not less than thirty pages, at the subscription price of $2.50 per year. The *Bulletin* will be primarily one for biologists "devoted to the biological interests of the Gulf section." Its scope apparently extends over a field which no current journal has yet attempted to cover entirely.

Published in the Interests of Californian Ornithology.

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Audubon Department Edited by MABEL OSGOOD WRIGHT.

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PHOTO BY C. BARLOW.

NEST AND EGGS OF THE PLUMED QUAIL.

SIERRA NEVADA MTS. 1899.

(See page 60.)

BULLETIN

— OF THE —

COOPER ORNITHOLOGICAL CLUB.

A Bi-monthly Exponent of Californian Ornithology.

Vol. 1. No. 4. **Santa Clara, Cal., July-August, 1899.** $1.00 a Year.

Another Chapter on the Nesting of *Dendroica occidentalis*, and Other Sierra Notes.

BY C. BARLOW, SANTA CLARA, CAL.

[Read before the Northern Division of the Cooper Orn. Club, July 1, 1899.]

RESTING in a four-foot cedar tree in the forest, with tall cedars and pines towering about it, the third nest and eggs of the Hermit Warbler were destined to be found. This nest was discovered by Mr. H. W. Carriger, who was one of our party to visit the Sierras from June 6 to 11, and to Mr, Carriger belongs the credit of taking the set, and through his kindness I am permitted to describe the nest and eggs, which constitute the third authentic set on record.

Our location was Fyffe, El Dorado Co., Cal., at an elevation of 3,700 feet, in the pine belt. Black-throated Gray, Calaveras and Hermit Warblers were present in about equal numbers, and could be classed as common. They were observed chiefly in the black oaks where most of the smaller birds seem to secure their food supply and the singing birds were doubtless males. On June 8, while passing through the timber, Mr. Carriger came upon a nest of the Hermit Warbler placed in a small cedar tree but 2½ feet from the ground. The female was off at the time but soon appeared in a near-by bush. The nest was built on a small limb near the trunk of the sapling, which is certainly an unusual nesting site for this tree-breeding species to select.

The nest held four badly incubated eggs and we returned in the afternoon to photograph and collect the set. A photograph was taken of the sapling and nest, showing the latter's position, after which we prepared to secure a picture of the bird when she should return and alight on the nest. All twigs which threw shadows on the nest were cut away until it was fully exposed to the sun. The camera was then set up about four feet from the nest, a string was attached to the shutter, and we prepared to conceal ourselves in the bushes. Mr. Welch, who carried the gun (a very necessary collecting adjunct in some cases) unconsciously deposited himself upon a small ant-hill, and heroically withstood their onslaughts for an hour, while Mr. Carriger crawled into some deer brush and I sat down ten feet away behind some small cedars to await the coming of the bird and take the picture. Soon the female warbler appeared and grew nervous at the army of invaders which surrounded her, the lense of the camera seeming most terrifying of all. Soon, however, she grew quite fearless and hopped about the bushes and in the pine above me, sometimes approaching within three feet and feeding all the while. Several times she hopped close to the nest, but a glance at the camera caused her to lose courage and around the circuit of bushes and trees she would go again, finally approaching the nest.

Meanwhile we were keeping as quiet in the hot sun, as numerous ants, flies, mosquitoes and other winged abominations would permit. Finally, the bird made her last circuit, approached the bush and hopped up on the edge of the nest; the shutter clicked and the watch said we had waited something over three hours for the photograph. This, however, was not forthcoming, for when I reached home and developed the plate it was almost completely "fogged," there being but an outline of the bird and nest. While our direct object failed I cannot say I regret my three hours' close acquaintance with little *Dendroica occidentalis*.

Mr. Carriger collected the nest and eggs which he describes as follows: the nest is composed outwardly of small, light weed stems and bleached pine needles, lined with cedar bark and horsehair. The nest measures: inside diameter 1¾x2 inches; outside 3x4 inches (extremes); outside depth 3 inches; inside depth 1½ inches. Placed 2½ feet from the ground in a small cedar, resting on a small limb about two inches from the trunk. The eggs measure .66x.52; .65x.53; .66x.53 and .67x.54 inches, and are marked principally at the larger ends, some confluently, with reddish brown and a few spots of black. The markings are heavy and more in the form of a wash than distinct spots. The female parent was secured. We noticed that the male Hermit Warblers were usually singing from the tall pines and black oaks and it is unlikely that the female sings during the breeding season. The position of the male bird has little to do with the location of the nest, and in the case of Mr. Carriger's nest the male did not appear for nearly an hour.

On June 9, two miles above Fyffe I saw a pair of Hermit Warblers and watched the female, thinking she had left her nest to feed. I watched her for half an hour, during which time she searched the deer brush and small trees industriously for food, covering both sides of the road, and the number of worms consumed was really remarkable. Finally I discovered her feeding a young bird in the road and had no trouble in capturing it. It was just out of the nest and could not fly apparently. The plumage consisted of a few pin feathers, wing coverts and down of a dark grayish color, with two white bars on each wing. After examining it, I left the bird perched on a low limb.

While walking along a narrow trail in the woods on June 9, a Calaveras Warbler (*Helminthophila ruficapilla gutturalis*) flushed a few feet ahead of me and I found the nest beneath a small cedar bush, built in the "mountain misery" flush with the ground. The cavity was lined with soap root fiber and the nest contained five half grown young.

Three nests of the Plumed Quail were found by us, all built in the tarweed or "mountain misery" (*Chamæbatia foliolosa*), and all near paths or roads. The one shown in the illustration was built at the foot of a large cedar tree, and was nicely concealed and shaded by the foliage of the weeds. The nesting cavity was about six inches across and three inches deep, lined with feathers from the parent bird. It held ten eggs, in which incubation was well advanced. Several times the bird was flushed in order that we might observe the nest, but she was persistent and always returned. The photograph was taken in the early morning of June 7, at which time the bright sunlight presented a variety of shades in the forest. The "mountain misery" was in full bloom at this time and the nature of the shrub is well illustrated in the half-tone photograph. Another nest containing 11 incubated eggs was found on the same day, placed amongst the tar-weed in the shade of large cedars. This nesting cavity was about six inches in depth, and composed of dry leaves from the tar-weed and lined with feathers. From the nests observed it seems certain that the Plumed Quail makes a nest of its own, for the one last mentioned was substantial enough to bring home. On June 10 Mr. Carriger took a nest and 10 eggs built beside the road in the tar-weed three miles above Fyffe. The whistle of the Plumed Quail could be heard commonly through the woods, but the birds were seldom seen.

Nesting and Other Habits of the Oregon Towhee.

BY D. A. COHEN, ALAMEDA, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 1898.]

THIS variety, *Pipilo maculatus oregonus*, was here at one time known by local collectors as the Spurred Towhee, *P. m. megalonyx*, but now as near as I can determine the true Spurred Towhee is not found nearer than Monterey County and our Alameda County variety is *oregonus*. With us the Oregon Towhee is resident, spending the late summer until spring somewhat gregariously, caused probably more from choice of location than from sociability, but it is not observed in pairs so much as the Californian Towhee, *P. fuscus crissalis*, at the period just stated. At this season it is wariest, secluding itself to the underbrush, but after pairing in the spring is much more easily approached, owing in a great measure to its uneasiness at the approach or the invasion of its nesting site. At this time, especially if a nest is under construction, both birds display great uneasiness, flitting about the tops of the low growth, uttering their unmusical "chir-chee-wee" or "che-weeee" but their utmost anxiety is displayed after the young are hatched. The birds continue their various notes so long as a person remains in the vicinity of the nest, and approach quite close if the person remains reasonably quiet. Presuming the female does all the incubating, the male at this period generally betrays the vicinity of the nest by his nervousness, his notes first attracting attention. He is often heard, from his perch, uttering notes, caused by nothing further than inclinations. The notes at any time are little varied. After the young are grown very little is heard of the Oregon Towhee's vocal powers unless the bird is driven from its retreat or is suddenly startled.

Being almost terrestrial it is also partly arboreal, often flying short distances from tree to tree and when pursued often forsaking the underbrush for trees. Its food is obtained mostly from the ground chiefly by scratching, after the manner of the robin, and is mostly insectivorous. It is one of the last birds to settle down for the night. I have not met this bird throughout the country as abundantly as I expected to and among hundreds of nests I have found only one was away from Alameda. This nest was found by accident. As I was resting in a densely wooded locality thickly grown up with underbrush where I had for a number of years noticed one pair of Oregon Towhees, yet never expecting to find the nest in such a wild place, a movement in the bushes close by almost caused me to shoot at a supposed wood rat, but upon investigation it proved that it was the flushed bird slipping back onto the nest, containing a handsome set of four eggs, the nest elaborately composed of weed stems and a larger proportion of dead leaves, situated two feet from the ground among dense brambles and fallen leaves, and about eighteen inches from the top of the mass, and several feet from the road.

All the nesting data about to be related is from my home in Alameda and recorded from a radius of less than 400 yards. From 1886 to about 1892 I found annually an average of eight sets and a few nests containing young. There were then approximately nine pairs of birds and many sets were second sets of the same season. At that time the nests were placed on the ground with very rare exceptions, but owing to an army of cats that had become self supporting there were in 1898 only seven pairs of Oregon Towhees on the premises and nearly all the nests for the last five or six years were placed off the ground, especially on clumps of prickly wild blackberry vines. Having freed the premises from the cats by late spring, the Oregon Towhees began to build more on the ground, also the California Partridges commenced to resume their choice nesting sites. The Oregon Towhees' usual nesting site is under a small wild blackberry vine growing among the grass, or under low growths of these vines, always more or less in the shade of a tree. Occasionally under the foliage of cypress limbs spreading over the ground, more commonly under myrtle, less commonly among ivy growing along the ground, but always in a partly shaded spot. One nest was under the drooping leaves of an artichoke plant and one beside a lauristinus hedge among a bed of verbenas was subjected to almost all the sun. In all these ground-nesting cases the bird scratches a hollow in the sandy soil or leaf mould about an inch deep before bringing building material. One nest, four feet from the ground, was fashioned into the rather flat top of a partially decayed oak stub on a live oak, the trunk of the tree and the stub being overgrown with ivy. It contained a set of four eggs and as near as I remember, fifteen eggs of the California Partridge. The female ? towhee was incubating on top of the pile. The partridge occasionally deposits one or two eggs in a towhee's nest built on the ground. One nest on the ground contained three towhee's eggs and eighteen partridge's, the towhee having abandoned the nest after six or eight partridge eggs were deposited in it. One peculiarly situated nest was almost under a log lying under an oak tree; it also contained one partridge egg. Several years ago I found a high nest, nine feet up in a large cypress tree and several others about this distance from the ground, among oak branches intergrown with wild blackberry vines, while in 1898 I noted a nest twelve feet up in the same cypress tree. No eggs were laid in it. One nest, one foot off the ground, was in a geranium bush, one in a cypress hedge five feet up, one, unused, in a small apple tree eight feet up and several in low thick garden shrubs, while others were on top of low clumps of wild blackberry vines so that the leaves afforded concealment and protection from the sun and in rare cases trees afforded no shade.

The earliest nesting date is March 27, 1888, the next earliest, April 4, 1896, with complete sets, yet April 20 is none too early for first sets. Sets of fresh eggs in June and July are indicative of second or third sets, as I have experimented to demonstrate this by taking the first and second sets of particular pairs of Oregon Towhees causing them to build and lay three times in one season. As an instance of this towhee's devotion to a particular spot, I removed in one season three nests and sets of one pair of birds and an average of two sets a season in other seasons from the same pair for four or five years in succession. Their nest was always within twenty feet of the center of a low growth of wild blackberry vines under a large oak tree. This experiment also goes to demonstrate that oologists do not, by taking a set of eggs, destroy that number of birds, as some people think it does. I can quote instances of other species of birds producing a new nest and set of eggs in a remarkably short period after being robbed of the first or even the second set, if it will be of any help to the oological fraternity. The towhees require from two to three weeks after being robbed to produce a new domicile and eggs; some other species less time. The second nests usually contain less material than the first, and as an example of this assertion and to demonstrate the devotion of the birds to a certain area of their choice, in 1897 I took a second set from under a small blackberry vine in a wooded pasture and the third set was found three weeks later about sixty feet distant from the site of the first under a very small vine where the grass had been entirely eaten down and was very scant in material.

I can never think otherwise than that Major Bendire was correct in asserting that eggs of individual birds in consecutive sets bear marked resemblance to each other, for, by taking into account the similarity of a late set to the preceding set of the same year, both sets taken nearly from the same spot, the evidence is almost conclusive, not alone in the case of the Oregon Towhee but with many other birds, and to make it conclusive, in my opinion at least, I have noticed that eggs taken from year to year from the same small area occupied by one pair of birds, bear unmistakable resemblance in shape as well as in coloration and style of marking. In a large series, just as they come, the shape, coloration and marking of different sets are remarkably wide apart; some are long, either oval or pointed at one end, seldom pointed however, while others are much rounded. The difference in size and shape of eggs in one set is occasionally commentable and the style of marking may be odd, also the ground color, while very rarely all these characteristics present themselves in a set of four eggs.

Four eggs is the average number to a set, often three, and only twice have I found five eggs. I have taken two sets of two eggs each, all much below medium size; three eggs were well incubated and the fourth was infertile. In early numbers of the *Nidiologist* I referred to having found sets of unusually small eggs, and individual birds laying successive sets of such eggs. The only abnormally large egg I found was among a set of three eggs. . One nest of four very small eggs contained two that were infertile, two heavily incubated and two of the California Partridge, heavily incubated.

The nests bear a great similarity in material used. The general composition is a lot of dry leaves for a foundation or for a lining over the earth, strips of bark, stalks of weeds, coarse dry grass, occasionally a few shavings and rubbish that can be worked into the foundation and rim. The lining is the least variable, being neatly laid, rather crosswise, and consists of a certain kind of fine, bright, dry grass which is almost all stem. Occasionally there is a little less of this grass when long hair is substituted, but this they seem unable to place so neatly as the California Towhee. A nest under an oak in the center of a large grain field was composed of a few pieces of weed stems, the balance and the lining of short, rather coarse black rootlets, the wild grass in this case being probably too far distant for birds of short flight to carry. A nest built near a pile of dead cypress branches was composed chiefly of strips of bark from the branches. Other nests whenever found under pine trees are invariably lined totally with dry pine needles, the birds evidently preferring this pliant material of suitable length to the kind of grass usually used and growing close by.

The young when first hatched are black with yellow gapes and covered with thin greyish-white down. The incubating bird sets close and the nest is usually found by flushing the bird which at times flushes at the sound of approach fifty feet away, always betraying the location by rising high enough into the air to be detected, though occasionally slipping away through cover to a short distance, only to make a fuss and cause a search for the nest. At times the bird hops along a few feet before rising.

Some years ago, one winter, I beheld an Oregon Towhee on top of a leafless apple tree truthfully imitating the California Jay's commonest notes, very different from its own. From my close point of observation I could detect the movements of its throat and bill and determine that none other than the object of my gaze was for the time being the "mockingbird", the only one of its kind I have had the fortune to hear.

* * *

Summer Resident Warblers of Arizona.

BY O. W. HOWARD, LOS ANGELES, CAL.

[Read before the Southern Division of the Cooper Orn. Club, Feb. 25, 1899.]

VIRGINIA'S WARBLER.

(*Concluded.*)

This species is quite common in the pine regions throughout Arizona, but I have not seen it at a lower elevation than 5000 feet. Unlike other warblers in this section, they keep almost entirely in the underbrush, where they are continually on the move and at the same time uttering a quick chirp as if in distress. Owing to the dull plumage and retiring habits of this bird comparatively few are seen. The nests are placed on the ground, under a bush or tuft of grass and are made of fine straws, rootlets and fibres, loosely put together. Except when the birds have young, they are very shy about going to the nest, and for this reason few nests are found with eggs while more are found containing young birds.

On our trip in 1896, Mr. W. B. Judson found a nest containing four fresh eggs on the 17th day of May. It was placed on a side hill under a tuft of grass at an elevation of about 7000 feet. On June 1, Mr. Judson found another nest in the same locality and after watching the bird for fully a half hour she went to the nest which was placed on the edge of a bluff in a bunch of grass, under some pines After seeing the bird go to where we supposed the nest was situated we made a careful search and nearly stepped on it several times when Mr. Judson finally found it. This nest contained four eggs well advanced in incubation. The eggs are of a dull white color, finely speckled over the entire surface with brown and cinnamon. The nests of the bird, like those of other ground-nesting birds of this locality, are destroyed by jays and snakes. The jays steal both eggs and young. Often a whole band of these winged wolves will sweep down on a nest and in less time than it takes to tell it they will devour the contents and destroy the nest, the pitiful notes of the helpless parents being drowned by the harsh notes of the marauders.

AUDUBONS' WARBLER.

Audubon's Warbler is quite scarce during the summer months, as only a few of them remain to breed. Like the Olive, they are found high up in the pines along the tops of the ridges. I found several nests in 1897 and 1898 in Huachuca Mountains. The nests are very loosely constructed, being composed almost entirely of loose straws with a few feathers and hair for a lining. The eggs, generally four in number, are of a dull white ground color with light brown spots and blotches and under shell markings of a dull lavender. One nest containing four slightly incubated eggs, found on June 14, 1898, was placed in a red fir tree about fifteen feet up, which is unusually low for this species.

Another nest taken June 22, 1898, was placed in the lower branches of a sugar-pine about fifty feet from the ground, and twelve feet out from the trunk of the tree. This nest, like many others, could be taken only by using a long rope which I always carry with me. One end of the rope is drawn up into the tree by means of a cord and is passed around the trunk over a limb diagonally above the nest; the rope is then pulled around until both ends meet on the ground, thus making a double rope. The party on the ground then walks out with the rope until it reaches a point within a foot or two of the nest and holds it as tight as possible so that the rope is quite often at an angle of 45°. The party up the tree then twists the rope around one leg and slides down to a point even with the nest where he hangs on with one hand and with the other takes the eggs from the nest, one by one, and places them in his mouth. This seems to take half an hour but probably takes a half-minute. The next thing in order is to cut the end of the limb off with the nest. This is done with a small hatchet carried in the belt and is the most aggravating job I know of; it is something like playing golf. You strike at the air three times to every time you hit the limb and the worst of it all is that you cannot swear because you have your mouth full of eggs. When the limb is nearly severed you put your hatchet back in your belt or drop it on the rocks below to keep it sharp. Then you pull the limb off and hold it in one hand while you slide down the rope to the ground, where you find a shady place and lie down while the other fellow pulls the rope down. Three or four innings like this every day will give you a fine appetite for supper. If you don't believe me, try it!

BLACK-THROATED GRAY WARBLER.

These birds are very plentiful during the breeding season in the mountains of Southern Arizona. They may be found from an altitude of 4000 to 9000 feet, but are more common in the oak belt, from 4000 to 7000 feet altitude, where a great many of them breed. Nevertheless, comparatively few nests are found. I believe the reason for this is, because unlike other warblers, these birds do not have a note of alarm nor do they show any signs of breeding, and unless you see them carrying building material one might as well give up watching them for they could keep you busy all day doing nothing else. The birds are constantly on the jump, apparently catching insects. Even when flushed from the nest they will hop about in their usual unconcerned manner. Many nests are placed in the dense thickets of scrub oak which abound in this section. They are placed in the forks of the larger limbs quite often within reach of the ground, while other nests are placed high up in pines. The nests are very compact, of a deep cup shape, much like those of the Yellow Warbler. The nesting material varies according to the locality.

From a nest found May 20, 1896. I secured a fine set of four fresh eggs. This nest was placed in an oak sapling, in an upright fork about ten feet from the ground. I visited two other nests the same day. These were placed in similar situations. I had found the birds building these some time before and expected to procure a fine set of eggs from each, but to my disappointment both nests had been destroyed, the work, undoubtedly, of Arizona Jays. I found other nests, some placed in large white oaks and some in sycamores and have known the birds to build high up in pines. The eggs are dull white, speckled and blotched with grayish-brown. There is great variation in the color and size, even in eggs of the same set.

PAINTED REDSTART.

One of the prettiest of all our warblers. The markings of red, white and black are very clear and the birds seem to take great pride in showing off their colors. With their wings partly open and tail spread they may be seen hopping about on mossy banks or stumps of large trees, generally in the vicinity of a spring or waterfall; now and then they will fly up to catch some insect, much after the manner of the flycatcher. Breeding commences early in April and lasts until June. I found two nests just completed on April 11, 1897 in the Santa Catalina Mountains, near Tucson, Ariz., and also found a set of fresh eggs on June 1, 1896 in the Huachuca Mts.

The nests are usually placed on sloping ground under a projecting rock or bunch of grass and, as a rule, in the vicinity of a spring or waterfall where there is a rank growth of ferns or grass. These nests are loosely constructed as a rule but sometimes are quite compact and are composed of fine straws, vegetable fibres and leaves, with a lining of fine grass and hair. The nests I found were between 5000 and 8000 feet elevation. The eggs are more nearly oval in shape than most other warblers' and are slightly larger than the average. They are pure white, speckled with markings of cinnamon and lavender over the entire shell, but more heavily at the larger end, sometimes forming a wreath.

RED-FACED WARBLER.

These birds are quite common in the mountains of Southern Arizona, especially during the spring migration. I have seen as many as four or five feeding in one tree. They become scarcer as the season advances and at the time of breeding comparatively few of them remain. The nests are placed on the ground under a bunch of grass or near a fallen log, where leaves have drifted. It would be impossible to find them without watching the birds and even then one must be very quiet and keep out of sight as much as possible, for the birds seem to realize the danger of going to the nest.

I found my first nest on May 18, 1896 at an elevation of about 7000 feet. It was placed on a side hill under a tuft of grass. The composition was mostly of fine straws with a few leaves for lining. This nest contained four perfectly fresh eggs, pure white in color, marked with fine specks and blotches over the entire shell, and more thickly at the larger end. There is quite a variation in the eggs, both in size and marking. The other nests I examined were placed in similar situations and the full sets were invariably of four eggs each.

THE PASSING OF ALFONSE FORRER.

ALFONSE FORRER died at his home in Santa Cruz, Cal., on March 15, 1899. His life was one of activity, constantly associated with nature. Few have left behind them so much to perpetuate their memory as has the subject of this sketch. It has in years gone by given me much pleasure to listen to the many interesting narratives which came into Mr. Forrer's life as a naturalist, I having lived a number of years in the same city which Mr. Forrer had chosen for his home, and where he died. Alfonse Forrer was born in London in 1836. His early education was secured in England, after which he went to Zurich, then a great center of learning. He spoke fluently, as well as read and wrote German, French and Spanish, and also English, in which he was possessed of more than ordinary learning.

At an early age he emigrated to the United States, and at the outbreak of hostilities in 1861 he enlisted with the Ist Louisiana Cavalry, serving as First Lieutenant in the cause of the North. At the close of the war Mr. Forrer accepted a commission to collect zoological material along the west coast of Mexico and the United States for the British Museum. He made extensive collections of mammals, birds, birds' nests and eggs, shells, reptiles and insects in the state of Sinaloa and Durango and the Tres Marias Islands, Mexico. Later several months were spent at La Paz, Lower California, thence to San Diego and up the coast. Some time was spent in search of natural history subjects in the high Sierras from Lake Tahoe northward through Sierra, Plumas, Lassen and Modoc counties. Much valuable material was collected in the vicinity of Klamath Lake, Oregon, Fort Lapwai, Idaho and on Vancouver Island. After having supplied the British Museum with large series of everything taken, other museums were supplied, in which connection Mr. Forrer made four trips to Europe.

The discoveries which perpetuate the name of Forrer are a goldfinch, *Chrysomistris forreri*, collected near Mazatlan, Mexico, and named in his honor by Sclater and Godman. Other forms are a vireo, *Vireo flavoviridis forreri* and a parrot, *Chrysotis forreri*. Besides these we have a frog, a snail, a star fish and several plants that bear his name. In ten years of field work it is naturally expected that Mr. Forrer met with many obstacles that impeded his work and many instances of pleasure, as well as some that were annoying and embarassing. An instance of this kind happened while he was collecting in a "backwoods" region in eastern Oregon. Mr. Forrer was desirous of getting a few sets of eggs of the Sage Grouse. His own efforts proving repeated failures, he at last resorted to an advertisement in a local paper, offering to pay a good cash price for several sets of eggs of the Sage Grouse. In a few days a small country lad stood in Mr. Forrer's presence offering a set of nine eggs of the desired species. Mr. Forrer accepted these, paid the stipulated price and the lad returned to his country home. The next day the lad brought two more sets which were also taken. Two days later more sets were brought! Mr. Forrer's suspicions were then aroused and after a critical examination it was decided that the eggs were frauds and they were thereupon destroyed. Mr. Forrer gained in experience, while the boy was richer by several dollars as the result of a clever imitation which could not have been done so neatly except by one who knew the bird and its eggs well. I had the pleasure of examining one of these eggs which Mr. Forrer saved for future reference. I concluded it was the egg of a small breed of chicken, carefully wrapped in cloth having small, irregular markings, and by applying vinegar the print was left on the shell of the egg.

Mr. Forrer was widely known in Europe as well as in the United States among the older naturalists, but less so with the younger generation, since in his later years active field work was abandoned, excepting, perhaps, in shells, star-fish and sea mosses. The seashore about Santa Cruz offered many advantages in these branches. I have seen Mr. Forrer, accompanied by his wife, collecting the beauties that lurked among the rocks as the tide went out, on many occasions. In the death of Alfonse Forrer we lose a noted naturalist, one who has been a friend to many a struggling youth in helping him along the difficult path to a better knowledge of avian life, the beauties of the sea and the freedom that can be enjoyed in nature study.

Geo. F. Breninger.

Phœnix, Arizona, May 21, 1899.

Some Summer Birds of Palamar Mountains, from the Notes of J. Maurice Hatch.

BY RICHARD C. MCGREGOR.

This list of birds, observed by Mr. Hatch on the Palamar Mountains, between June 16 and 21, 1897, has been arranged from notes which he sent me for use in the state list. The mountains have an altitude of 5000 to 6000 feet and are covered with firs, oaks and cedars. Ferns and underbrush of various kinds abound. Numerous small streams of water are present.

1 *Oreortyx pictus plumiferus.*—Fairly common. A nest found June 19, contained five well incubated eggs.

2 *Lophortyx californica vallicola.*—Common at western base of the mountains. A female taken June 16 had an egg in the oviduct.

3 *Columba fasciata.*—About 100 birds seen near western base of mountains on June 15.

4 *Zenaidura macroura.*—Common at western base of mountains. One young in the nest found June 15.

5 *Pseudogryphus californianus.*—Breeds. One seen on the 16th and four more two days later.

6 *Cathartes aura.*—Quite common both at the base and on the summit.

7 *Buteo borealis calurus.*—One pair seen on the summit.

8 *Falco sparverius deserticolus.*—Fairly common on the summit of the mountains where it probably breeds.

9 *Melanerpes formicivorous bairdi.*—Very common at this time of the year. Some young birds and adult males were collected, the latter having the testes very large.

10 *Colaptes cafer.*—Fairly common summer resident.

11 *Calypte costæ.*—A few pairs seen.

12 *Calypte anna.*—A few pairs seen.

13 *Myiarchus cinerascens.*—A few seen. One taken on the 19th.

14 *Contopus richardsonii.*—Common. Nests from 25 to 50 feet from the ground. Two nests collected contained two and three eggs respectively.

15 *Otocoris alpestris chrysolæma.*—A few pairs seen on the western slope of the mountains.

16 *Cyanocitta stelleri frontalis.*—Common. Both young of the year and new nest

found.

17 *Corvus americanus.*–A few seen at west side and 18 five miles east of the summit, feeding on the myriads of grasshoppers that were present.

18 *Sturnella magna neglecta.*–Common in the mountain meadows.

19 *Icterus cucullatus nelsoni.*–Common at western base and on the top of the mountains.

20 *Scolecophagus cyanocephalus.*.–A few young of the year seen.

21 *Carpodacus purpureus californicus.*–Scarce. Very shy and difficult to approach.

22 *Carpodacus mexicanus frontalis.*–A small flock and a few pairs seen near an orchard. Four fresh eggs taken on the 19th.

23 *Chondestes grammacus strigatus.*–Fairly common.

24 *Spizella socialis arizonæ.*–A few pairs seen.

25 *Junco hyemalis thurberi.*–Abundant. Nestlings and new nests observed on the 19th.

26 *Pipilo maculatus megalonyx.*–Common. Fresh eggs collected.

27 *Zamelodia melanocephala.*– Fairly common. Young were seen, just able to fly.

28 *Cyanospiza amœna.*–Common. Probably breeds.

29 *Piranga ludoviciana.*–Few seen. A male was taken in breeding plumage and with greatly enlarged testes.

30 *Petrochelidon lunifrons.*–A few pair.

31 *Tachycineta thalassina.*– Common. Breeding in natural cavity of trees.

32 *Phainopepla nitens.*–Common at western base of mountains where they were eating alder berries. One nest in course of construction was found.

33 *Vireo gilvus.*–Common at summit.

34 *Dendroica æstiva.*–Fairly common.

35 *Troglodytes aedon aztecus.*–Very abundant, more than twenty nests containing young being observed.

36 *Certhia familiaris occidentalis.*–Rare.

37 *Sitta carolinensis aculeata.*–Common.

38 *Parus inornatus.*–A large flock noted on the mountain side.

39 *Parus gambeli.*–Common.

40 *Sialia mexicana occidentalis.*–Common. Set of four eggs taken on the 17th.

Observations on the American Raven in Southern California.

BY C. B. LINTON, WHITTIER, CAL.

DURING my collecting experience I have found the American Raven (*Corvus corax sinuatus*) nesting in almost every range of foot-hills in Los Angeles and neighboring counties. Although it is being continually driven deeper into the wildest and most inaccessible portions of its former haunts by the encroachment of civilization, it is still abundant in certain localities. In the Puente hills of Los Angeles County I have taken numerous sets of eggs of the American Raven in the past four years. A tramp of a day or two through this range will reveal to the collector dozens of large, compact nests now unused excepting by an occasional Great Horned Owl or Western Redtail, whereas they were formerly occupied by ravens.

In February, 1895, I found my first pair of ravens putting the finishing touches to a huge nest built on a ledge of rock about fifty feet from the bottom of a ninety foot cliff. I was greatly discouraged at first as this nest seemed inaccessible, but on March 14 I persuaded a friend to climb to it, and he being experienced in the art, reached the nest without difficulty and secured a handsome set of five fresh eggs, which measured 2.09x1.37; 2.06x1.37; 2.04x1.35; 1.88x1.31 and 1.79x1.28. In color they were bluish-green, heavily covered with blotches of dark brown and quite similar to eggs of the American Crow. A set of four slightly incubated eggs was taken from this nest on March 28 and I procured another set of six eggs from a neighboring cliff on April 20, evidently from the same pair of birds. The eggs of this set vary greatly in size and coloration, one being very small and slightly marked.

I have noticed quite an oddity in three sets of eggs taken from a pair of birds in 1897. Each egg has a "knob" on the larger end, making the series quite a curiosity, and I have noticed the same deformity in a set taken this season (1899) from a new nest near the site of the old ones, the new nest being composed of the remnants of the several old ones, with some additions. The raven is very persistent and I have known one pair to lay four sets of eggs in one season and would probably have laid a fifth but unfortunately the nest was destroyed.

I have occasionally found them nesting in the steep banks of deep, narrow gulches, but usually they prefer a large gravel cliff in some secluded part of the hills, and in every instance the nests have been lined with sheep's wool gathered from the numerous bands of sheep feeding in the vicinity. I had intended to pay my respects to the ravens this year but have been otherwise engaged. However I procured a handsome set of Duck Hawk 1/3 from a deserted raven's nest on April 5, 1899, and feel that since I cannot help it, that I should allow my birds a short vacation.

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FURTHER COMMUNICATIONS ON BIRD PROTECTION.

"CIRCUMSTANCES ALTER CASES."

To My Fellow Collectors:—

"The science of ornithology demands the collecting of any reasonable number of birds to further its ends, and personally I have taken the lives of birds with as much zeal as any, when the skins were desired for actual use." I believe that I stand on the same ground as that defined by Mr. Barlow in our last BULLETIN. I am also in sympathy with the position taken by Dr. Coues in his editorial in April *Osprey*. To put the matter in my own words, I believe in collecting all the scientific specimens, birds' skins and eggs included, that we may want to use. I believe in series and large series. If, of one species, we can use 100 mammals or 300 fish, we had better take them. If specimens are to be compared, if we can learn anything from them, or if we can pass them on to another who is in need of the material, I believe we are justified in collecting in any quantity to supply that demand. I do not believe in collecting for the milliner or taking birds in nesting timewhen the same plumages may be had before nesting. I have refrained from shooting many birds because I thought they had nests and I have shot birds when I knew they had eggs or young. "Circumstances alter cases."

In the numerous letters which have appeared in the last six months concerning "bird slaughter" and "egg hogging", there seem to be about three grounds upon which the various authors condemn collecting. It is wrong to kill birds and take their eggs because (1) it is cruel; (2) it is of no use or scientific benefit or (3) it will exterminate the species. If it is cruel to kill wild birds and take their eggs then we had better stop killing and robbing the domestic birds. I do not agree with the Rev. Mr. Henninger that "the *forcing* a *poor* Flicker to lay 71 eggs in 73 days" is cruel. How many eggs is a *poor* barn-yard fowl forced to lay in a year? Is it not cruel to *force* her to hatch duck's eggs? It is not commonly so considered. The question of cruelty is one which we cannot consider in this connection as it is a matter of personal opinion and not subject to discussion any more than religious dogmas are.

The value of large series of eggs from a single species is largely a matter of personal opinion. For my part I think as much can be learned from 150 eggs of the Red-tailed Hawk as from an egg each of 150 species of birds. In this connection it is hardly worth while to call attention to the indignation of F. H. K. in his review of *Eggs of Native Pennsylvania Birds*, *Osprey* for November, 1898, where he condemns the collecting of more than ? eggs of a species and of oological abnormalities altogether. The number of sets of a species which you will take must be regulated by yourself and decided without the help of the protectionist. Everyone learns by collecting a few eggs for himself. There is one class of collectors which should certainly be suppressed and they have been well dealt with, in writing, by Mr. Witmer Stone. See *Auk* XVI, p. 55. For the boys who gather eggs as they would pretty shells and the man who strives to possess the largest collection in town, we have no use. Neither can we consider such articles as the one asking "Hast thou named all the birds without a gun"? We don't do it that way on the Pacific Coast. The A. O. U. says it doesn't go!

In the possible extermination of birds we find the first point which the extreme bird protectionists have made. If we are seriously reducing the bird ranks it is time to call a halt and every sincere ornithologist will obey the command. Let us see what evidence we have in the case. I believe that most of the writers speak without knowledge, for they certainly fail to present facts. The Rev. Mr. Henninger, however, gives us an array of figures from Davie's *Nests & Eggs of North American Birds* which is very alarming,—to the Rev. Mr. Henninger. *(Osprey*, Feb. '99.*)* Does he seriously fear that the taking of 500 Coot's eggs or 917 Kentucky Warbler's eggs will endanger these species? Blessed news; let us gather at once 5,000 eggs of *Passer domesticus* and wipe him from the earth! I do not wish to write anything in defense of Mr. Davie's book; it needs none. Long may it live. What I do wish is to set at rest the mind of the Rev. Mr. Henninger concerning the destruction of certain bird species at the hand of the egg collector. He objects to one man having 94 eggs of *Ptychoramphus aleuticus*. I have never taken many eggs of this bird myself, but could show anyone where 94 eggs might be taken every day for two weeks and leave several thousand for seed. If I am not mistaken, I helped collect "50 eggs of the Guadalupe Petrel in two days," but I can assure the fearful that there were plenty of Petrels' eggs still in the ground.

If I tell him of taking 100 Shearwaters' eggs in one day, shall I be condemned? Yet there are thousands of Shearwaters' eggs left in that place. The fact that a few men only possess such large series as 112 eggs of the Chuck-will's-widow seems to make a lot of difference, to the widows. If everyone collected in big series the poor Chucks might have to try the Flicker's dodge of laying 71 eggs in 73 days. The Rev. Henninger shows how well he has learned his profession when he mentions an act and leaves his readers to imagine the attendant circumstances. 'Tis a common trick of the public speaker but goes not so well in writing. To illustrate what I mean let us take the case of the Guadalupe Petrel. This bird breeds, so far as known, only on Guadalupe, an uninhabited island 200 miles from civilization. A trip there is expensive and landing dangerous. At the time of our visit the eggs and nesting of the petrel were almost unknown. The island is over-run with wild domestic cats which make a business of catching petrels as the setting birds enter and leave their burrows. It is in all probability only a question of a short time before the cats will have exterminated the birds. In view of these facts I ask if we were not justified in taking fifty eggs in two days. Circumstances may alter some of the other cases.

As to the wholesale collecting of birds themselves, I cannot believe it is so dangerous as depicted. I have made a little calculation which really surprised myself. Here it is. Let us suppose that each collector in California kills 5,000 birds each year. There are not over 100 bird and egg collectors in our State so we would have 500,000 birds destroyed each year. Now the area of California is a little over 150,000 square miles, thus giving an annual destruction of three birds to each square mile! This, even, is a most exaggerated estimate, for I very much doubt if there are twenty-five collectors in California, each of whom destroys annually 1,000 birds or eggs. I have collected in the state for about eight years and have under 3,000 skins. The largest private collection I know of here contains little over 10,000 specimens.

I believe that the taking of birds for commercial purposes, the destruction of birds and eggs by boys and the extensive collecting of birds during nesting time, as described in our last Bulletin are abuses of liberty which should be condemned and prevented. If we are to study biology in all its branches we must have liberty. As to what is abuse of that liberty each must be his own judge, as he is his own judge of what constitutes the abuse of friendship or of any other civil or personal relation.

Richard C. McGregor.

Palo Alto, Cal.

* * *

Among the graduates of the class of '99 at Stanford University, the Cooper Club was well represented. Mr. W. W. Price took his degree of Master of Arts in zoology, while Messrs. R. C. McGregor and Ralph Arnold received the degree of B. A. in ethics and geology respectively. Mr. Arnold was honored with the presidency of the class of '99, and has been the leader of the Stanford Mandolin Club for several years past.

Wilfred H. Osgood of the Biological Survey and a member of the Cooper Club, left Seattle on May 24 with Dr. L. B. Bishop of New Haven, Conn., and Mr. A. G. Maddren of Stanford University, for Dawson City on a scientific expedition. The party will be gone five months, travelling from Skagway to Dawson City, thence by revenue steamer down the Yukon to St. Michaels. Mammals and birds will be collected, Mr. Osgood acting as chief naturalist of the expedition.

Winter Observations on Anna's Hummingbird.

BY W. O. EMERSON, HAYWARDS, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sep. 3, 1898.]

NO OTHER group of birds possesses such mysterious interest as the hummingbirds whose brilliancy of plumage entitles them to be called "gems of the air." Living among highly colored flowers from the tropics to the icy north, never in the dust of the earth, the hues of the rainbow are theirs. During the open winter of 1897-98 I had an opportunity to see the hardy Anna's Hummingbirds every day around my house, among the flowering shrubs and blossoming eucalyptus trees. From November 12 they became so common that at any time one or two could be seen resting on the ends of cherry branches or gathering gnats or sweets from the eucalyptus blossoms. One was shot on the 21st which surprised me on picking it up to see that it had not yet attained the perfect helmet. Around the base of the bill were still a number of pin-feathers. Another, collected on the 25th, had only one-half of the crown patch developed, the other feathers at the base of the bill being still in silvery cases. From this I judge that many males do not get their adult feathers till late in winter.

On the 26th and 27th a dozen or more could be seen chasing one another through the eucalypti, scolding and twittering like young swallows. This was more to be noticed among the males, the females many times sitting side by side on the same branch. December growing cooler, only one now and then would be seen in the early forenoon or near dusk, although males were shot on the 2nd, 11th, 19th, 21st and 25th, no females being seen. One on the 21st had a few pin feathers in the throat patch; one on the 25th had eight or nine perfect feathers in the helmet, the rest of a dull grayish color and the throat patch mottled and incomplete. On cold mornings the hummingbirds would flutter around, hardly able to move their wings, flying in a dull, stupid way as though scarcely awake, but as the air grew warmer they became more lively. Jan. 15 a male was taken which showed a perfect rusty grayish helmet from bill to base of skull, where there are ten or twelve adult feathers lined up around the outer edge. The throat was more of the pattern of the females, being of a grayish lustre, with a reflection of the Ruby-throat. One shot on the 10th had a few feathers at the base of the bill. A female, the first one seen, was shot on the 10th. Another was noticed early in the morning, gathering spider webs along the cypress hedge.

I find no data in any work regarding this winter transition of the male's helmet and throat patch. February 24, 1898, full-fledged young were flying about the garden, showing very early nesting. The data for the first nest found in the past ten years shows a range of four months, as follows: Feb. 22, 1882; Feb. 25, 1883; April 20, 1884; Feb. 21, 1885; Jan. 19, 1886; Jan. 14, 1887; March 20, 1888; March 23, 1889; March 20, 1890 and March 12, 1897. As the cherry trees began to bloom by March 16, 1898, a wave of migration occurred at Haywards. Great numbers of Allen's Hummingbirds appeared and Anna's became more abundant.

Echoes from the Field.

Ravens Nesting on a Railroad Bridge. On April 10th last a sheep-herder brought me a set of three eggs of the American Raven, and on questioning him concerning the nest I learned they were taken from a nest beneath a railroad bridge. This seemed odd, to say the least, as I know of several of their nests on inaccessible cliffs, the birds seeming to intuitively know that man is their enemy. Recently I visited the locality from which the eggs came to verify the truthfulness of the collector's description and to secure the remaining eggs of the set if they had been laid. We travelled some twelve miles of sage desert and came in sight of the bridge under which the alleged nest was situated. It was apparent that the ravens had selected the bridge for the reason that it was the best place in the district. There were no cliffs within perhaps twenty miles, and as feed was plentiful the ravens had concluded to use the bridge for a nesting site. I found the nest in a confused heap on the ground and two broken eggs near by, the nest having probably been pushed from the trestle by the section men. It had been placed on an upper beam of the bridge and the eggs could not have been more than two feet from the rails. The distance from the ground was about thirty feet. The nest was composed outwardly of coarse sticks, some of them two feet in length. Inside was a snug lining of about five pounds of wool, mixed with soft cedar bark. Many sheep graze on the deserts in winter and the wool was easily obtained. The railroad is used by four trains daily between Lehi Junction and the Tintic mining region and is a branch of the Union Pacific Railway.

H. C. JOHNSON, American Fork, Utah.

Decoy Nests of the Western Winter Wren. I have used the expression "decoy" for the nests that are built by many of our birds, apart from the one used for raising the young. This habit is, perhaps, more characteristic with the wrens than with any other family of our birds, although it is well known as a trait of the Marsh Wrens. The Western Winter Wren, (*Troglodytes hiemalis pacificus*), can easily claim second place in this peculiarity, if, indeed, it does not fully equal the Marsh Wrens. The number of "decoys" built by one pair of these birds varies from one to at least four, and on one occasion I found eight of these false nests that were strung along the edge of a stream bordered by dense growth of all sizes. These were all in a space about 150 yards long and almost in a straight line, but owing to extreme difficulty in locating them, it is probable that there were more. One thing is painfully certain, that I could not find the right nest, although it must have been in the immediate vicinity. I do not, however, feel justified in claiming that all of these belonged to one pair of birds, as four is the largest number I have ever found in any previous case, but only one bird put in an appearance during my entire search. The "decoys" are never so well constructed as the regular nests, but a few weeks ago I was surprised to find that a pair had made over and lined one of last season and laid one egg. Unfortunately a very wet period of weather soaked the nest so thoroughly that the birds deserted. This seems to supply one very good reason for the apparently superfluous "decoys." J. H. BOWLES, Tacoma, Wash., May 29, '99.

Elevated Nest of the Lutescent Warbler. On May 31, 1897, I found a nest of the Lutescent Warbler placed three feet from the ground in a bunch of vines. It was loosely constructed of a quantity of dry leaves, grass and skeletons of leaves, lined with hair and fine grass. On May 3, 1899, while walking along a creek about one quarter of a mile from where I had found the nest in 1897, I flushed a bird from a nest in an oak tree, and was surprised to see it was a Lutescent Warbler. The nest was six feet from the ground and three feet from the trunk of the tree. A horizontal limb branched out from the tree and a small branch stuck up from it for about eight inches, and over this was a great quantity of Spanish moss, (*Ramalina retiformis*), which fell over the horizontal limb. The nest is quite bulky, composed of leaves, grass and bark strips, lined with hair and fine grass, and was partially supported by both limbs and the moss, which is all about it and which forms quite a cover for the eggs. At this date the eggs were about to hatch and could not be saved. HENRY W. CARRIGER, Sonoma, Cal.

The Yellow Rail and Saw-Whet Owl in Sonoma Co., Cal. On December 20, 1898, while walking through the salt grass, I flushed a Yellow Rail which flew about twenty feet and alighted. I caught it and carried it about all day and put it in a box that night. The following morning it was quite lively, but I reluctantly killed it. It proved to be a female in fine condition and measures; length, 6½; extent, 13; wing, 3¼; tail 1.20 inches.

On the night of December 16, 1898, my brother brought me an owl which he had caught in a tree near the house. The night was cold and foggy and the bird was apparently in an exhausted condition. To secure the owl, my brother made several jumps at the limb on which it sat before pulling it to the ground, where it sat stupefied and was placed in a box. The next morning it was dead, and upon skinning it I found the stomach empty and the bird in an emaciated condition. Sex, female; length, 19½ inches; extent 8 or 8½ inches. The bird proved to be a Saw-Whet Owl, a record for Sonoma Co. Henry W. Carriger, Sonoma, Cal.

Violet-green Swallow in Marin Co; Two Unrecorded Captures. I was pleased to see my note on the Violet-green Swallow, which appeared in Bulletin No. 2, considered worthy of Mr. Carriger's remark in the last issue. The note was certainly rather vague and gave no reason for my identification, which I will now give: *First:* In all the birds which came near enough to be seen distinctly, the *large white patches* on either side of the rump were most conspicuous. *Secondly:* In one instance a bird wheeled so near me (not more than 20 feet away) that a flash of *violet* on the back was distinctly seen as the bird flew by. As these two points, I believe, are characteristic ? of the Violet-green and not of the Tree Swallow, I think the birds seen may safely be called the former. As no specimens were secured there, of course, is a doubt, but I took the birds to be Violet-green Swallows.

Junco hyemalis.—On January 24, 1897, at Berkely, Cal., I collected an adult ♂ (typical) of this species, as it was feeding by the roadside in company with a large flock of *J. h. oregonus.*

Spinus psaltria arizonæ.—Took a pair of birds at Santa Clara, Cal., the ♂ of which proved to be a typical specimen of this species. On comparison with a number of skins from Arizona and other localities, this bird was found to be a little darker than any and much darker than most of those from the type locality.

T. E. Slevin, San Francisco, Cal.

Three Records for San Mateo Co., Cal. I wish to report the capture here in Redwood City, on Sept. 17, '97, of a female Bobolink, (*Dolichonyx oryzivorus*). The bird was extremely shy and was found among cabbages in a vegetable garden, where it was associated with Bryant's and the Western Savanna Sparrow. This is, as far as I am aware, the first record for the State.

I also have two specimens ♂ ♀ of Leache's Petrel, taken on May 7, '99, near Pescadero, Cal. These are possibly the first ever recorded from the mainland coast of California. They are probably the same as those reported from the Farallone Islands.

In my collection at this time is a skin of the Mexican Ground Dove, belonging to Mr. Chas. Nichols of Pescadero, and taken near that place on Feb. 27, '98. The bird was shot by a boy and given to Mr. Nichols, who made a specimen of it. There were eleven of them in a flock, I understand. They arrived in the boy's yard during a severe storm and sought shelter in a wood-pile, where they remained for three days, when the weather cleared and they departed.

Chase Littlejohn, Redwood City, Cal.

Nesting of Belding's Sparrow. (*Ammodramus beldingi.*) April 21, 1899 while collecting near Santa Monica I was fortunate enough to discover three nests of Belding's Sparrow, two containing eggs and one containing young. The nests were placed in the salt grass about six inches above the ground and were composed principally of large and small straws of the salt grass with a few straws of Bermuda grass interwoven. The first nest, which contained four eggs, was well lined with horse-hair while the second nest (⅓) was lined mostly with fine straws, some hairs and a few gull feathers. The eggs are of a light blue ground color, with irregular markings of lilac and reddish brown. The set of four is marked almost entirely at the larger end, while the other set is well washed over the entire surface. Both sets were incubated about three-fifths.

Howard Robertson, Los Angeles, Cal.

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Write plainly and confine your article to one side of the sheet.

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EDITORIAL NOTES.

The agitation of the question of bird protection in the last BULLETIN has been productive of numerous words of good cheer from all sides, which unanimity of opinion is gratifying in the extreme. We have the assurance from one of the gentlemen referred to as having indulged in unlimited collecting that no more such work will be done by him and that he believes he collected beyond the limit of scientific requirements, and his frank statement will claim the admiration of all who respect an example of sterling manhood. The sentiment has been unanimous that promiscuous collecting during the breeding season is wholly a question of principle and can have no defense in-so-far as connecting it with the extermination of the birds is concerned. The letters received have been largely from practical ornithologists, and if they may be taken as indicating the feeling of ornithologists generally, the BULLETIN has sounded the key-note of bird protection.

The dread of the ultra-sentimentalists seems to inspire all active workers, and there appears a desire to eliminate them from the ranks of the true protectionists. As there was no dissenting voice raised, the BULLETIN has omitted publishing the numerous letters received as their sentiment was but a repetition of the stand taken. A communication from Mr. Richard C. McGregor will be found elsewhere dealing with the matter of collecting, under the caption "Circumstances Alter Cases," and several views are presented which may be considered to advantage, although they may not be intended to apply to the position we have taken.

A pamphlet has been issued by the Pennsylvania Audubon Society through the efforts of Mr. Witmer Stone, Chairman of the A. O. U. Bird Protection Committee, addressed to young bird students, in which they are taught that a personal collection of common local birds is unnecessary to scientific advancement and an effort is made to counteract "the effect of the advice of egg dealers and traders, who seem bent upon developing our budding students into 'egg hogs' instead of ornithologists." The pamphlet is one of the most practical ones in point of reason and good advice which has been issued and Mr. Stone has shorn it of any unnecessary sentiment.

Through an inadvertency in our last issue on page 52, the "Notes from Alameda, Cal.," were not credited. They were contributed by Mr. Donald A. Cohen of Alameda, Cal.

In the Proceedings of the Biological Society of Washington (Vol. XIII, pp. 41-42, May 29, 1899) Mr. Wilfred H. Osgood of the Cooper Club submits a paper on "*Chamæa fasciata* and its Subspecies." Mr. Osgood finds that the Wren-Tit (*Chamæa fasciata* and the Pallid Wren-Tit (*C. f. henshawi*) are synonomous and it becomes necessary to provide a new name for the northern coast form "heretofore assumed to be typical *fasciata*." Accordingly, the Pallid Wren-Tit (*Chamæa fasciata*) is assigned to the "southern coast and interior of California, including coast valleys and foothills from San Francisco Bay south to northern Lower California; interior valleys and slopes north to head of the Sacramento Valley; upper Sonoran zone." For the northern coast form is proposed the name of *Chamæa fasciata phæa*, or Coast Wren-Tit, with the following habitat: "Coast of Oregon and California from Astoria to Nicasio. Transition zone."

MR. W. B. JUDSON of Los Angeles, now located at Dawson City, N. W. T., writes:—"I have done practically no collecting since I left Los Angeles in February 1898. I saw about twenty nests of the Bald Eagle with the birds about them at Wrangel and at the mouth of the Stickeen. I found several nests of the Three-toed Woodpecker at the lakes after leaving Glenora on the last of May, but all had young nearly ready to fly. I have seen a couple of Hawk Owls and a few small birds in the fall, but there are no birds here at present, (March) excepting ravens, chicadees and jays. Also a few ptarmigan and grouse. I have put up one skin since I came in." Mr. Judson speaks doubtfully of mining interests about Dawson City.

The Gopher Snake as a Despoiler of Quails' Nests.

The question of what part the common spotted gopher-snake plays in the economy of nature has arisen frequently in my mind, and until recently I had accepted the prevalent opinion that he was "harmless." The following four observations, however, have convinced me that he is a bad citizen. The Valley Partridge is a very common bird on the Stanford ranch, due to the protection from hunters the year round. I have often heard the old birds during breeding time giving the alarm notes for several minutes. They were generally perched in the trees and I ascribed their fear to my approach.

May 29—I came upon a pair of partridges in a low tree giving notes of great alarm. I thought at first that a flock of newly hatched chicks might be near and commenced to look for them. Pulling aside the branches of a low shrub, there was disclosed a nest of eight eggs and a large gopher snake with four knots in his body, which, when pressed, flattened out. I watched him a moment and he swallowed an egg. I killed him and ripped him open. Inside were four eggs unbroken and material for at least two more.

May 31.—Another pair of excited birds attracted my attention and after an hour's search I found another nest of twelve eggs and another snake with one lump in his body. I killed him instantly.

June 5.—Still another excited partridge household and the same cause discovered after search. This time I tried dragging the robber away, to ascertain how anxious he was to continue his meal. He would return after being taken away ten paces. I killed him and cut him open. He had swallowed at least one egg which was well along in incubation.

June 22.—This time a flutter and a struggle in the shrubbery attracted my attention. It was the female trying to drive the snake away. Being in a hurry I carried the snake about fifty yards down the path and put him down. He started off in the direction of the nest and when I returned an hour later he was gulping down an egg. There was a lump in him well down toward the end of the abdomen, and I regretted after having killed him that I did not bring him home and see if he was able to digest an egg with the shell on.

THEODORE J. HOOVER.

Stanford University, June 22, '99

Taking of a Condor's Egg.

On April 17, 1899, an egg of the California Condor was taken in San Roque canon, near Santa Barbara, by F. Ruiz, a surveyor in the employ of the Pacific Improvement Co., who, with a party, was doing some work in the canon. His attention was first attracted by seeing a pair of the birds flying about the canon, and it occurred to him that there might possibly be a nest in the vicinity. Acting on this supposition he and a companion named Forbush proceeded up the canon, and finally noticed a cave on a high cliff some 150 feet above the creek, which they managed to reach after considerable difficulty. From the top Ruiz was enabled to look over the edge a short distance into the cave, where he saw the egg on the floor of the cave, with one of the birds crouched on the ground beside the nest, which consisted of a few sticks of brush and some sand which had evidently blown into the cave from the edge of the cliff.

Mr. Ruiz states that the bird remained in this position until he had thrown several rocks at it, one of which either hit the bird or came close enough to make it take flight when it proceeded down the canon. At considerable risk, Ruiz then clambered down into the cave without the aid of a rope or other assistance, save what the brush afforded, his companion remaining on the cliff to give him warning in event of any hostility on the part of the disturbed condor. While securing the egg he was told that the bird was returning and as he was retreating up the cliff with the prize he noticed both birds on the wing, and to use his own words, "fighting and quarreling in the air." They did not attempt any attack, but followed the men about for a considerable time before taking leave. The egg was perfectly fresh and measured 4 3-10 x 2 6-10 inches and was a trifle deeper in color than those I have seen illustrated. A young condor (a "yearling," I suppose) was shot in the same canon about two months ago.

A. P. REDINGTON.

Santa Barbara, Cal., May 2, '99.

* * *

JOHN M. WELCH, Henry W. Carriger and C. Barlow spent a week in the Sierras of El Dorado Co., Cal., early in June and had a most enjoyable outing. Numerous photographs were taken and Mr. Carriger carried away the only set of Hermit Warbler reported for the season.

Official Minutes of Southern Division.

MAY.

The Division met May 27 at the residence of Mr. H. J. Leland in Los Angeles. The following were present: Messrs. McCormick, Daggett, Swarth, Leland, Chambers, Rising and Robertson. Messrs. McAuliffe and Lapham were present as visitors. Mr. and Mrs. A. C. Moody of Pasadena were elected to membership. The final design of a club crest, as drawn by Mr. Emerson was accepted. On motion of Mr. McCormick it was agreed to amend the section of the Division's by-laws, changing the meeting night from the last Saturday to the last Thursday in the month. The treasurer reported that there were a number of delinquent members on his list and that he had sent notices to each at different times but had received no replies. He was instructed to send one more notice to each delinquent notifying him of his arrears and stating that if a settlement was not made by the next meeting his name would be dropped from the membership roll. A communication from Mr. McGregor was read and a copy ordered filed. A letter from Earle D. Parker, formerly of Pasadena, containing his resignation was read and the resignation accepted. The following paper was read: "Ornithology in the Sierra Nevadas at 3700 ft. altitude." by C. Barlow. Adjourned.

JUNE.

The June meeting was held at the residence of Mr. A. C. Moody, Pasadena, on June 29. Mr. Daggett presided. The following were present: Mr. and Mrs. Moody, Messrs. Daggett, Reiser, Swarth and Robertson. The secretary was instructed to make a copy of all county ordinances relating to the protection of game and song birds that have been recently passed in this county and make a report at the next meeting.

HOWARD ROBERTSON,
Div. Secretary.

Official Minutes of Northern Division.

The Division met at the residence of H. R. Taylor in Alameda, July 1, Mr. Emerson in the chair. Messrs. Milton S. Ray, Chester C. Lamb. E. V. Warren and N. M. Flower were elected to active membership. The names of W. H. Kobbe of Ft. Mason, San Francisco, and H. H. Sheldon of Alameda were proposed for membership. Bills to the amount of $3.86 were allowed. The following papers were read: "Winter Birds of the Lower Colorado Valley," by W. W. Price; "The Genus *Junco* in California" by H. B. Kaeding; "Another Chapter on the Nesting of the Hermit Warbler" by C. Barlow.

C. BARLOW,
Div. Secretary.

As we go to press we learn of the retirement from the *Osprey* staff of Dr. Elliott Coues, Mr. Walter A. Johnson and Mr. L. A. Fuertes, leaving Dr. Theo. Gill to direct the destinies of the magazine. We are unable to learn whether or not Dr. Gill will continue to publish the *Osprey*.

PALO ALTO, CAL., JUNE 18, 1899,
Fellow Members of the Cooper Club;

Under date of Oct. 1, 1896, circular No. 1 was sent to you setting forth our plan for the preparation of a list of California birds. County lists were to be sent to me not later than January of the next year that I as secretary of the State List Committee might proceed at once to draw up our list.

In a very short time I began to receive contributions and things looked well, but after the tenth list not another could I secure. I have let the matter stand until this spring, when I got together what material was on hand and now I have that in good shape. I have decided to get up the water birds first, as that is what we most need and I believe the Club is able to have it printed. I shall use such of the material in Mr. Belding's manuscript, "Water Birds of the Pacific District," as relates to California and any published notes that are available. I hope those who have any records on the water birds, especially extended local lists, will send them to me at once.

I am now in a position to push the work rapidly and trust you will all do your part that we may have a good catalogue of water birds.

Notes are especially desired on abundance, nesting dates and time of arrival and departure. Give specific data as much as possible and avoid generalized statements.

Faithfully, RICHARD C. MCGREGOR.

Publications Received.

Bird Lore, I, No. 3, June, 1899.

Maine Sportsman, VI, Nos. 69 and 70, May and June, 1899.

Museum V, Nos. 7 and 8, May and June, 1899.

Osprey III, No. 9, May, 1899.

Oologist XVI, No. 5, May, 1899.

Ornithologisches Jahrbuch IX, No. 1.

Plant World II, Nos. 8 and 9, May and June, 1899.

Proc. Biological Society of Washington, Vol. XIII, (in part).

Sports Afield, No. 6, June, 1899.

Wilson Bulletin, No. 26, May, 1899.

MARRIED.—In San Francisco, June 6, 1899, Miss Mildred Crew Brooke of Baltimore, to Theodore J. Hoover of Stanford University, Rev. E. B. Church, assistant rector of Trinity Church, officiating.

Mr. Hoover is a prominent member of the Cooper Club, and his numerous friends and club mates will join in tendering their hearty congratulations and well wishes.

JOHN M. WILLARD of Oakland is spending two months on a collecting trip at the summit of the mountains of Lassen County in the interests of several Club members about the Bay.

MR. LYMAN BELDING of Stockton has been rusticating on the McCloud River near Dunsmuir, Shasta Co., for several weeks, and we hope has materially improved in health.

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The American Ornithologists' Union

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BULLETIN

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COOPER ORNITHOLOGICAL CLUB.

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PROMINENT CALIFORNIAN ORNITHOLOGISTS.

II. ROLLO H. BECK.

FEW more active ornithologists are found in California's present corps of field workers than the subject of our sketch—R. H. Beck. Having lived for years at Berryessa, Cal., which is almost a suburb of San Jose, nestling at the foot of the western slope of the Mt. Hamilton range, he has been within easy reach of a most interesting country and where much of his work has been done.

Mr. Beck first began practical collecting in 1889 and in a few years possessed an excellent oological collection of native species. Among his earlier good finds were several pairs of Dotted Canon Wrens which were annual contributors of interesting sets of eggs at which time few sets of the species were in collections. His work among the birds has at all times been active and as a result he possesses a valuable collection of study material in skins. Mr. Beck has followed taxidermy ardently for years and has put forth some excellent groups, while others are in process at the present time.

On the Alviso marsh of San Francisco Bay in 1891, Mr. Beck secured two specimens of a form of the Sharp-tailed Sparrow which were the first taken on the coast and unlike the eastern species. The form was described by Mr. Robt. Ridgway and named in Mr. Beck's honor, *Ammodramus caudacutus becki*. The marsh mentioned has yielded a number of Black and Yellow Rail as a result of Mr. Beck's prowess.

For some years previous to Major Bendire's death Mr. Beck sent him many valuable notes on the nesting of little-known species which his extended field work had permitted him to secure. In Monterey Co., in 1891, he collected a nest and four eggs of the Rufous-crowned Sparrow which were secured by Major Bendire for the National Museum. Near the same locality he met with the Black Swift (*Cypseloides niger*) and his notes were subsequently embodied in Major Bendire's work.

In 1896 Mr. Beck in company with Mr. W. H. Osgood made an extended trip through the Sierra Nevada Mountains of Central California, spending most of the summer in the field and his good fortune again bore fruit. Two sets of eggs of special interest to science were taken; on June 10, 1896, he located a nest of the Hermit Warbler at 5000 feet altitude, placed 45 feet up in a pine, and by dint of carrying a heavy ladder up a steep hillside he secured the first positively authentic nest and eggs of this warbler. (Proc. Cooper Club, *Nidologist* IV, p. 79). On June 18, 1896, Mr. Beck collected a nest and four eggs of the Western Evening Grosbeak near the same locality having found it building a week before. This was the first set of this species known to science and together with the set of

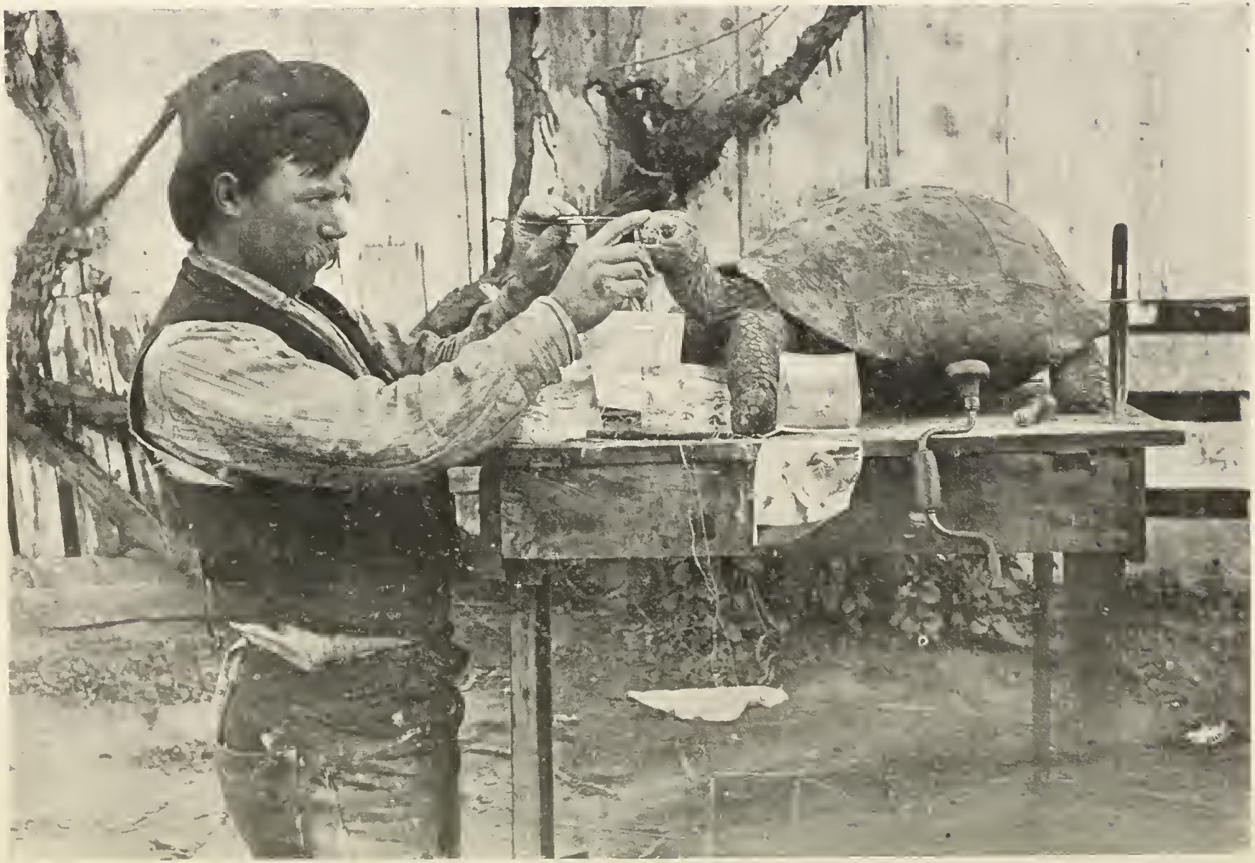

Photo by R. H. Beck.

ROLLO H. BECK MOUNTING A GALAPAGOS TORTOISE.

Hermit Warbler found its way to the National Museum. (Proc. Cooper Orn. Club, *Nidologist* IV, p. 3).

In June, 1897, Mr. Beck was called from his camp in the Sierras to San Francisco where he became a member of the Frank B. Webster expedition under command of C. M. Harris and spent seven months collecting in the Galapagos Archipelago. The expedition brought back much new and valuable material which went into the Rothschild collection in London. Mr. Beck was honored in having a species of *Certhidea* named after him. It was from this expedition that the Giant Tortoise shown in the plate was secured.

Mr. Beck has made two collecting trips to Santa Cruz Island and others of the channel group where he secured considerable material of special interest, among them being specimens of the Island Shrike from which the type was described by Dr. Edgar A. Mearns in the *Auk* for July, 1898, as *Lanius ludovicianus anthonyi*. He also took the first recorded nests and eggs of the Santa Cruz Jay on Santa Cruz Island, from all of which work one may judge of the extreme energy of Mr. Beck as a field worker. His skill as a sportsman is not less pronounced than his careful work in ornithology, and he is withal a true naturalist, a lover of the rod, gun and camera, possessed of a keen perception of art in nature and a modesty for the value of his scientific work. Mr. Beck's collecting grounds cover a rugged country but yield several sets of Golden Eagle each year, due more to tireless energy than good fortune. As a member of the Cooper Club since 1894 Mr. Beck has held the offices of president and vice president and contributed to the advancement of the Club.

The plate herewith given represents Mr. Beck mounting his Giant Tortoise from the Galapagos Islands. The tortoise lived for almost a year after its arrival at Berryessa and seemed to thrive upon a diet of cactus and would in all probability have lived many years to enjoy the salubrious climate of the Santa Clara Valley had it not on an evil evening forgotten to draw in its head! A frost came, the tortoise was nipped in the bud, and we present the very natural picture of Mr. Beck putting the finishing touches to a really excellent pose of the tortoise. C. B.

* * *

The Genus Junco in California.

BY HENRY B. KAEDING, TAYLORSVILLE, CAL.

[Read before the Northern Division of the Cooper Orn. Club, July 1 1899.]

THE State of California may be roughly divided into three sections, each having its characteristic climate and subsequent peculiarities in flora and fauna, and to the ornithologist it is particularly interesting to note the influence that these climatic conditions bring to bear upon the avifauna of the state.

The first of these sections is the Coast Range Mts. from the vicinity of Monterey, northward. Here we have a cool, moist region, of no great altitude, subject to sea breezes and fogs. The birds of this section show distinct traces of northern characteristics, as for instance, *Cyanocitta stelleri*, *Bubo virginianus saturatus*, *Oreortyx pictus*, etc. While of course at the southern end of this area some of the forms merge into their southern races and hence are intermediate in form, as one moves north along the coast, the races become more distinct until the pronounced forms of the northern states are reached. It is in this strip of coast and nowhere else that typical *Chamæa fasciata* is found, and it is only in the northern part of this section that anything approaching *Junco hyemalis oregonus* may be found breeding.

The second section may be called the "low-lands" and comprises the broad valleys of the Sacramento and San Joaquin rivers, with their adjacent rolling and foot-hill country. Here will be found the birds loving a hot, comparatively dry atmosphere—a profusion of blackbirds, meadowlarks, Black-headed Grosbeaks, etc. These birds reach their greatest abundance in this region, although they spread more or loss plentifully all over the state.

Lastly and the most distinct of any,

we have the great "Snowy Mountains,"—Los Sierra Nevada, extending almost the entire length of the state along its eastern border. These form a continuous chain, rearing their heads to a height of from 9,000 to 11,000 feet above the sea level with their bases on the west resting in the broad California valleys, and with passes over their summit ranging from 5,000 to 10,000 feet in altitude. The pass of the Southern Pacific Railroad at Truckee is low in comparison to some others, Sonora Pass in Tuolumne county being 9,500 ft. high. In this great section of California we encounter an avifauna different from the rest of the state. Here is the home of *Oreortyx pictus plumiferus*, of *Contopus borealis*, of *Passerella iliaca megarhyncha*, of *Zonotrichia leucophrys*, of *Junco hyemalis thurberi* and of a score of others which breed on the slopes of these mountains and migrate westward into the valleys in winter. This western migration is, with many species, the only migration, while with others, such as the various *Empidonaces*, *Tachycineta* and others a southerly migration takes place after the valleys are reached in the fall.

Southern California, south of Monterey Bay and of the lower end of the Sierras, might possibly be set aside as a fourth avian section; it has characteristics which none of the others have, being close to the arid deserts of Arizona, Texas and New Mexico, but it seems to be less distinct than any of the three I have mentioned, and apparently an intermediate ground for the birds of all, thus showing a mixed bird life. No birds are more interesting to work with and to watch than the Junco; the trim little plumage, sprightly and confiding air, the neat nests and dainty eggs all have a charm. California has, as far as I am able to ascertain, five species of this genus recorded within its limits,—three resident and breeding and two casual stragglers.

The most abundant and most widely distributed form is *Junco hyemalis thurberi* ANTHONY (1). This form differs from *oregonus* in having (2) "the sides paler and less extensively pinkish; dorsal patch paler and more sharply defined." The description of the type is as follows: (3)."Adult male. (Type No. 3072; Coll., A. W. Anthony, Wilson's Peak, Cal., May 24, 1890; E. C. Thurber, collector.) Head and neck all round slaty-black, sharply defined against the white breast and pale chestnut dorsal patch; lower parts and under tail coverts pure white; sides pale pinkish, grayish on flanks; wings and tail blackish, former with slightly hoary edgings of the primaries; three lateral retrices white, the third with inner web broadly blackish; bill and feet flesh color."

This is the common junco of California and ranges apparently throughout the Sierras and their tributary spurs from San Diego county on the south to Mt. Lassen on the north; it undoubtedly reaches farther north still but I have no record at the present writing of it so doing. During the summer juncos may be found up as high as 10,000 feet in the Sierras, but not as a rule lower than 3,000 feet, breeding. The breeding dates vary with the altitude and eggs may be found at 4,000 feet in May and as late as July 15 fresh eggs have been taken at 9,000 feet altitude. In the southern Sierras the latest recorded set was taken on June 12 on Mt. Wilson (4). Three or four eggs are the usual number in a set and rarely five. The nest is practically the same as that of other species of the genus, placed on the ground, though there are cases on record of nests being placed in trees and in deserted woodpeckers' holes. In the fall the birds congregate in flocks and move westward, through the foothill regions into the valleys. Some winter in the mountain valleys at varying altitudes, while large numbers work down into the valley region of Central California. Thurber's Junco is a common resident in the Laguna Mts. of Lower California.

Junco hyemalis oregonus is found in the typical form in Oregon during the summer and may possibly extend southward into the California Coast Range, but the most of the juncos breeding in the northern part of California and in the Coast Range north of San Francisco Bay are intermediate between *oregonus* and *thurberi*. These birds move southward in winter and may be found in large numbers in the rolling country about San Francisco Bay and to the northward.

The type locality of *Junco hyemalis pinosus* is Monterey, California, and here may be noted a peculiarity of the coast region from San Francisco southward through Santa Cruz and Monterey. This region has some birds of practically the same character as are found in the Sierras,—*Junco*, *Oreortyx*, *Turdus aonalaschkæ*, and while in the Sierra Nevadas these birds all seek high altitudes to breed, on the coast they are found breeding from sea level to mountain-top. The juncos of this region were separated by Mr. L. M. Loomis and carry very striking characters, the most conspicuous being the bright rufous or reddish dorsal patch which is much more pronounced than in either *oregonus* or *thurberi*. These juncos are very common in the vicinity of Monterey during summer and during the breeding season are the only ones found there, but as soon as the young are fledged the birds wander. Mr. D. A. Cohen has taken typical *pinosus* at Alameda during the late fall and winter, while Mr. Emerson took a large series of juncos at Monterey and found more of them to be intermediate between *oregonus* and *thurberi*, than *pinosus*. This may be accounted for by the fact that they were taken at the close of the breeding season. The Point Pinos Junco begins breeding early and fully fledged young have been taken May 25 and undoubtedly the majority of the birds were on the move and mingling with the first of the juncos from counties north of the Bay. The nest and eggs of the Pt. Pinos Junco apparently do not differ from those of Thurber's Junco.

The Slate-colored Junco (*Junco hyemalis)* is frequently taken in California. One is recorded from Battle Creek, 1898, and two from Saint Helena, 1899, McGregor; from Los Angeles Co. (5); San Diego Co., 1884 (6); Gridley, Butte Co., (7); Haywards, 1880 Emerson (8); Amador Co., Kaeding, 1895. These were all taken in winter I believe. The only record of the occurrence of *Junco caniceps* in California which I can find is the single specimen, a female, taken by Mr. W. B. Judson near Pasadena, on Oct. 26, 1894.

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1. Zoe. 1, p. 238. Issued Nov. 13, 1890. **2.** Ibid. **3.** Zoe. 1, p. 239, Nov. 13, 1890. **4.** Grinnell's Birds of the Pac. Slope of Los Angeles Co., p. 28. **5.** Ibid. **6.** Belding, Land Birds of the Pacific District, p. 159. **7.** Ibid. **8.** Ibid.

* * *

Mr. John M. Willard of Oakland returned on July 27 after an eight weeks' outing and collecting trip in Lassen County at 5,000 feet elevation. Yellow, Aububon's and Macgillivray's Warblers were the only ones seen. On June 19 several nests of the Western Martin were found, but no eggs had been laid and the birds deserted. On June 20 a lone nest was investigated and contained three half-grown young and two addled eggs. Other nests were seen but could not be reached. Two broods of the White-cheeked Goose were observed on Eagle Lake, near which place the farmers report them as nesting plentifully in favorable years. Mr. Willard secured many interesting skins, the region being prolific in woodpeckers.

H. R. Taylor of Alameda reports the taking of a nest and five fresh eggs of the Californian Towhee at Pescadero, Cal., on July 8, both the size of the set and late date being unusual, while Wm. H. Kobbe of Ft. Mason, San Francisco, records a set of six eggs of the House Finch taken from a nest ten feet up in a dragon tree. The nest and eggs were as usual, aside from the size of the set. Evidently a prolific year with the birds!

Richard C. McGregor of Palo Alto will accompany the U. S. Coast and Geodetic Survey steamer *Pathfinder* on a sounding expedition to the Hawaiian Islands as official photographer. The steamer leaves San Francisco in September and will return in the spring, going thence to Alaska.

On a recent hunting trip into the mountains of Monterey county Messrs. R. H. Beck and F. H. Holmes of Berryessa invaded the home of the Black Swift (*Cypseloides niger*), several specimens being secured. The swifts were frequenting oak-covered hillsides.

Nesting of the Western Flycatcher in San Gabriel Canon.

BY H. J. LELAND, LOS ANGELES, CAL.

[Read before the Southern Division of the Cooper Orn. Club, Dec. 29, 1898.]

THE west fork of the San Gabriel is the longest, most picturesque and most beautiful canon that I have had the pleasure of visiting in the Sierra Nevada Mts. It was in this canon between the first and fifteenth of June of the seasons of 1896 and 1898 that I had an excellent opportunity of watching this flycatcher in its summer home. In the darkest parts of the canon where the walls are close together and the alders thickest, one will always find the Western Flycatcher during the breeding season. Nest building begins not earlier than May 10 and fresh eggs are rarely found after June 10, excepting where the bird has been deprived of her first set.

Only one brood is reared and after incubation has begun the female, unless disturbed, does not leave the nest, being fed by the male, who is often the cause of the nest being found while performing this duty. In location, these nests vary considerably. In 1896 when I visited this canon in company with Mr. C. E. Groesbeck we collected eleven full sets of eggs with nests, and with a single exception all were taken from various situations in water alders, such as natural cavities, old woodpeckers' holes, between the trunk and loose bark and in the main crotches. The exception was taken by Mr. Groesbeck from one of the sides of the canon, on a small ledge covered with moss. When I again visited this canon in 1898 the location of the nests was reversed. I found more than fifteen nests but only succeeded in collecting eight sets of eggs, the other nests either containing young or eggs in which incubation was far advanced. Of these but two were found in trees. The first was taken on June 6 from between the trunk and loose bark of a water alder; the nest was eight feet from the ground and contained four nearly fresh eggs. The other was found two days later and was situated close to the edge of a large hole in the under side of a hollow log which had fallen across the stream. The nest was about four feet above the water and contained three eggs, two of which were pipped. Had I not been fishing this nest would probably have escaped my notice, as I flushed the bird just as I was about to pass under the log. The other nests found were in small holes in the bank, or on ledges, usually where there was an abundance of moss and varied from two to fifteen feet from the bed of the canon. In all cases the nests were well protected from rain and any loose rock which might roll down from the sides of the cliffs. The nests taken from the bank were nearly all composed of moss, while those taken from the trees were lined with fine grasses and other material.

* * * * * *

Macgillivray's Warbler in Alameda Co., Cal.

VERY little seems to be known of known of the nesting of Macgillivray's Warbler in Alameda county. Mr. H. R. Taylor found a nest last May containing two eggs, but the birds had deserted the nest on his next visit. A friend of mine found a nest last year among the bracken near the same locality. I think it was in 1891 that I first noticed the bird in the county, when I saw a male in Redwood canon where I have subsequently seen these warblers in breeding season.

In 1896 I flushed a pair near Contra Costa Co. from a brushy ravine with a small brook running through it. The birds had evidently nested among the thick bracken growing close to the brook and extending along it about forty feet and up the side hill forty or fifty feet. This was about June 2 and two young birds were noted, not yet able to fly. Not far from this pair of adults I noted a male and two more a mile further on. In several other places along the creeks I found birds in May and June and this year toward the last of May discovered a completed nest near where I had seen the young two years ago. The nest was about ten inches off the ground among a cluster of ferns in just such a locality as before described. I had to part the ferns to see the nest and the parents made quite a fuss, but abandoned the premises as I discovered ten days later.

It seems to be a common trait with this warbler to desert its nest after discovery. A friend found a nest in this county on June 3 containing two fresh eggs and on visiting it June 6 it held no more. On the 7th we both went to it and the female was incubating her two eggs. The nest was eight or ten inches from the ground among wild blackberry vines on the creek bank in an open part. The same collector took a nest and four fresh eggs two miles from this site on June 6.

Macgillivray's Warbler is shy, retiring and rather more common than expected if sought for without too much noise. Mr. W. O. Emerson reports this species at Haywards in various seasons as follows:—Female shot on May 2, 1881; nest of five downy young on May 22, 1881, on creek bank in thick brambles 2½ feet from the ground; male seen May 27, 1883, along creek; three males seen in a ravine April 12, 1895; two males seen on April 18, 1897, in thick brush on the hills.

Donald A. Cohen.

Alameda, Cal.

* * *

Notes on the Nesting of the Slender-billed Nuthatch.

THIS interesting bird may be classed as a common resident in this locality, but notwithstanding, several pairs succeed in raising a brood each season they do not increase, although a pair are invariably to be found in their old breeding grounds every year. Scattered throughout the valley are many large white and black oaks and in these the birds secure their food and find suitable nesting sites. They apparently remain paired the year round and are early nesters. My earliest nest was found March 23 and contained four fresh eggs and by the middle of April it would be hard to secure fresh eggs. A natural cavity is prefered but occasionally an old woodpecker's cavity is used.

The nest is composed of grass, moss, strings, fur, hair and feathers, of which materials the cavity usually contains a large amount. The nuthatch is a close sitter and occasionally one or more eggs are broken while removing the bird. A full set contains from five to nine eggs, the average being seven or eight.

When the set is complete one of the birds remains on the nest and the other now leads a very active life for it furnishes food for its nesting mate. The bird covers considerable ground in looking for food and when it reaches a tree nearly every limb seems to be searched for lurking insects and when one is secured the bird takes the nearest way to the tree where its nest is concealed, and going to the cavity delivers the insect and is off again in search of another. While searching for food it can be heard calling at short intervals and it is during this time that I generally locate my nest, but if the bird discovers you it will change the method of reaching its nest, going in a round-about way and thus often eluding one, no matter how carefully he may watch, and if you do reach the tree and are seen before the bird delivers the insect, it will not, in most instances, deliver the food while you are about.

I have never found the birds in heavy timber, but found a pair on the high ridge between Sonoma and Petaluma valleys, to reach which they must have travelled through heavy timber. It was an ideal place for the birds, being sparsely covered with large oaks where they could find plenty of food and good nesting sites. My observations tend to show that these birds are beneficial and deserving of protection from all. I would like to see them increase and often wonder what becomes of those raised in this valley.

Henry W. Carriger.

Sonoma, Cal.

Observations on the Nesting of *Parus rufescens* in Washington.

BY W. H. KOBBE, FT. MASON, SAN FRANCISCO, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 2, 1899.]

THE geographical distribution of the Chestnut-backed Chickadee as given by Davie is "Oregon, Washington, British Columbia and Southern Alaska." This is very true, but the center of abundance is in Washington State, where I observed this chickadee's habits, for the most part on Cape Disappointment. This cape is at the mouth of the Columbia River and extends about one mile into the ocean. It is very hilly and is covered for the most part by thick fir forests and the surface is also overgrown with a luxuriant growth of underbrush which is almost impenetrable. This seems to be the favorite country for this chickadee.

During my stay on the Cape I found the chickadees to be very common the year round, but especially so during the rainy winters, when large flocks of them could be seen scrambling about on the branches of the dripping firs in search of insects. They were often accompanied by flocks of the Oregon Chickadee (*Parus atricapillus occidentalis*) with whom they seemed to be on very good terms. I have also seen flocks of the Golden-crowned Kinglet in the same tree with the Chestnut-backed Chickadees, but cannot say that they mingle as freely as with the Oregon Chickadees.

Parus rufescens also seemed to prefer the more open woods along roads and trails to the dark recesses of the fir forests, and their peculiar lisping notes sound quite loud when heard in such places in the stillness of a drizzling day. Their notes are something like *the-the-the-te-te* pronounced with the tip of the tongue against the teeth. They generally keep this lisping up while feeding and I think very likely that it is a call note, because I have noticed that sometimes a single bird will fly into a tree and when it utters these notes the whole flock follows singly—one bird flying to the tree at a time. I have seen large flocks travel the whole length of about thirty fir trees in this manner.

During the summer of '98 I hunted diligently for their nests and was rewarded by finding one on May 20. On that day while hunting along the sides of a hilly canon I saw a small bird flying high over my head and, following it with my eye, saw it cross to the other side and enter, or, as I saw it, fly against a small black spot on a large dead stub. Upon further examination this spot proved to be a small hollow in the tree, which was five feet in diameter and twenty-five feet high. After watching awhile the bird came out and I was delighted to see that it was a Chestnut-backed Chickadee. She did not seem to mind my presence and after a few minutes re-entered the hole. This she did five or six times during the next half hour and I was at a loss to know whether she was building a nest or feeding her young, but as I could see nothing in her bill I determined to dig the nest out.

This was no easy matter because of the size of the stub, but with the help of my two brothers I was finally hoisted up to the opening which was twenty-one feet from the ground and one inch in diameter. When I reached the height of the cavity both parents showed a good deal of anxiety and were very nervous—hopping from branch to branch in near-by trees and keeping up their lisping *te-te-te*. The hollow extended directly downward and a partition of wood about three-quarters of an inch thick separated it from the outer air. This had to be broken through very carefully, since, if the cavity contained eggs, any chips falling in would break them. The nest was finally reached, however, six inches below the opening and contained seven perfectly fresh eggs which were white, minutely spotted with reddish specks, with the exception of one egg, which was pure white. They showed the following measurements: .62x.45, .61x.41–62x.45–.60x.41–.59x.42–.61x42 and .60x.42 inches.

The mass of hair, etc., in the hollow

had the form of a nest although I had to put it in a box to prevent it from falling to pieces. It is composed mostly of feathers and hair with a little gray moss and I also noticed a number of Steller's Jay's feathers in it. It measures four and a half inches across and about one inch deep and resembles nothing so much as a handful of floor-sweepings, especially the kind we sweep from the floors of our skinning rooms. Besides this nest I found two others. In one case I broke into the hollow but no eggs were to be seen, so the parents deserted on account of the exposure of their home. This hollow was about 20 feet from the ground. The third nest contained young and was 40 feet up.

* * *

Black Oystercatcher on Anacapa Islands.

On June 4, 1899, we dropped anchor near the southern end of Anacapa Island and prepared to go ashore and collect, although it was already late in the day. While we were getting ready, a shrill whistle was heard, followed by a loud clattering noise, and as we looked up, two large, dark-colored birds flew past and lit on a rock near by, still keeping up their noisy clamor. Their bright red bills and shrill notes easily established their identity as Black Oystercatchers, though we had hardly expected to see any on the islands. We got into the skiff and started to row around the island in search of a landing place, from which we could reach the top of the island, no easy job anywhere, and appearing from the boat almost impossible. We had not gone very far when two Oystercatchers were seen on some rocks. They allowed us to come within shooting range and I dropped one with each barrel, one falling dead on the rocks, while the other, only wounded, fluttered into the water.

Although there was a strong current and a heavy swell running, the wounded bird swam easily and swiftly to another clump of rocks fifty or sixty feet away, upon which it clambered and then fell exhausted. It was a matter of no little difficulty to retrieve either of the birds, and without a strong, experienced boatman it would have been impossible to have brought the boat close enough to the rocks for a person to jump out and in, without having the boat dashed to pieces. Both birds were retrieved without accident, however, and we went on in our search for a landing. Before long we saw another Oystercatcher in a similar place to the others, which was also secured. This bird was so unsuspicious that we were within thirty feet of it before we saw it, and were obliged to row further away before it could be shot.

These were all that we saw for the day, but on June 6, when we rowed along the other two islands of the group, six or eight of the birds were seen; all, however, in places where it would have been unsafe to have taken the skiff. All the birds were in pairs, except one that I shot, but on dissecting the three that I secured (a male and two females) it was evident that they were not breeding. All the birds that were seen were very tame and unsuspicious and paid very little attention to us. The crops of the three birds secured were filled with small mussels and they were all extremely fat.

H. S. Swarth, Los Angeles, Cal.

* * *

Additional Notes on the Birds of Santa Cruz Island, Cal.

With much interest I read Mr. Jos. Mailliard's article on the birds of Santa Cruz Island in the May-June number of the Bulletin, and finding his experience differed from mine in some particulars, I submit a few notes taken principally on the west end of the island in May, 1897. On June 5, 1895, I visited Scorpion Harbor for a few hours and landed on the square-looking rock mentioned by Mr. Mailliard. In addition to the breeding gulls and cormorants (Farallone and Baird's), there were many burrows of Cassin's Auklet which contained heavily incubated eggs or young birds. On the west end of the island there is an open, rolling stretch of land running back from the cliffs along shore. On this mesa the Horned Larks were abundant. While they were all in pairs and nesting, the nests were found only by accident. Two nests were collected on Santa Cruz and one on San Miguel Islands. They were located by flushing the bird from the nest. In every case the nest was nearly stepped on before the bird flew and in each case it was placed in a small bunch of grass in a slight hollow and was right on the feeding ground. I found the towhee (*Pipilo maculatus oregonus*) not very wild and secured without much trouble a dozen or so. Among those taken was a partial albino having many white feathers scattered among the black on the head and neck.

In a deep, rugged canon some distance inland I found an ideal nesting place for the Dusky Warblers,—a cool stream of water with thickets of green bushes and tangled vines on both sides. Warblers were seen here but no nests were found. A Flicker's nest was seen in a tall dead tree in the bottom of the canon and farther down this canon I found the Santa Cruz Jays nesting. I saw and collected in two or three different canons near the ocean specimens of the song sparrow (*M. f. graminea*). Four or five raven's nests were found, one containing four eggs. The others had young in various stages of growth. The nests were in holes among the rocks and cliffs in steep gulches, with but one exception. This was placed in an overhanging cliff, twenty feet from the top and high above the ocean, and contained four young on the 8th of May.
R. H. Beck.

Berryessa, Cal., June 15, 1899.

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Breeding of the Dusky Horned Lark in Eastern Washington.

Of the birds I met on a trip through the state of Washington, none were more common than the Dusky Horned Lark (*Otocoris alpestris merrilli*). About 25 miles west of Walla Walla one reaches what is known as "Eureka Flats," a large space of territory which a few years since was covered with sage brush and bunch grass, but now all that is tillable is in grain and the steep hillsides are pastured. It is the custom among the farmers of this district to summer-fallow one half the land each year and it was in one of these fields that I found this lark nesting.

I spent some time in a field of 160 acres, and in this field and along a road near by, I saw hundreds of the birds daily. There is no water in the district and the farmers haul it from a river and place it in cisterns. From the cisterns water is drawn for the horses, and this is the only place where the birds can obtain a drink, and it is a common sight to see numbers of them about the cistern on a hot day. The birds often remained for hours about the house or barn, for these furnished about all the shade there was on some of the farms.

I had been on the farm a few days when one bright morning at sunrise I heard birds singing which I thought were goldfinches, but on going outside no birds but the larks were about and I soon discovered that they were the songsters. I heard them often after that and would imagine that I was in California listening to the goldfinch, for it seemed strange to find a song bird in such a desolate, sandy country. Out in the summer-fallowed fields hundreds of Horned Larks were to be found, and it was a curious habit of the male to fly up into the air and by a series of circles mount higher and higher 'till it was lost to sight, although one could hear its note which was uttered every few seconds.

Scattered through the fields are numerous plants called "Chinese lettuce" and a species of lupine and under these the birds find a nesting place. A small hollow is scraped out and filled with pieces of wheat straw and dry lupine, with fine pieces of the latter for a lining. The eggs are three or four in number and vary considerably. When the set is incomplete or contains fresh eggs the bird often leaves the nest before you are near, but when the eggs are highly incubated the female sets close and remains near when disturbed. As the farmers have the weeds cut each year in the months of June or July, many nests are annually destroyed. Two or more sets are probably laid in a season as I saw large young in June and fresh eggs late in July.
Henry W. Carriger.

Sonoma, Cal.

Notes on California Song Sparrows.

BY RICHARD C. MCGREGOR.

Melospiza fasciata pusillula Ridgway. The Salt Marsh Song Sparrow is described by Mr. Ridgway (*Auk*, Jan. 1899, 35) as having the "superciliary stripe and under parts more or less tinged with yellowish, the latter never (?) pure white." In a series of twenty-six skins of the race before me twenty-one are more or less yellowish. They are from the following localities: Alviso, Haywards, Palo Alto, Alameda and West Berkeley; five from West Berkeley, one from Alviso, and one from Alameda, lack the yellowish both of superciliary stripe and lower parts, but are of an equally small size. One of my smallest birds (189, West Berkeley, Feb. 2, 1889) is faintly washed with yellowish on breast, belly, sides and flanks; throat, chin and superciliary stripe white. Three examples (1518, 1529, Alviso, Sept. 9, 1896; and 1634, Haywards salt marsh, Oct. 13, 1894) have nearly the whole plumage suffused with dark yellowish, even the median crown stripe, neck and back being washed with yellowish. A series of lighter yellow birds were taken on Palo Alto marsh in March. The white birds were taken in February, one in September.

The specimens at hand indicate that the yellowish coloration is independent of season, age, sex or condition of plumage. This seems to be a case parallel to that of *Ammodramus sandwichensis bryanti* and *A. s. alaudinus*. I find that these two *Ammodrami* intergrade beautifully in size and the smaller (*bryanti*) often is lighter and less yellow than the larger (*alaudinus*).

In the Pacific R. R. Report IX, 479, Baird describes *Melospiza gouldii* as "similar to *M. heermanni* but very much smaller. Breast and sides conspicuously streaked with black; back and head distinctly streaked; length 4.70; wing 2.10; tail 2.38." Concerning the type Mr. Ridgway wrote me April 14, 1894: "The type of *M. gouldi* Baird, although of unknown locality only 'California' being its known origin, agrees with the southern coast specimens in its less rusty coloration." Baird emphasizes the fact that *M. gouldii* has the wing and tail very small. Now the white birds which I have referred to *M. pusillula* are the smallest song sparrows I have seen and if they agree with Baird's type, the subspecies would stand as *Melospiza melodia gouldii* Baird. Many specimens of song sparrows from the southern coast district, especially breeding birds, are needed before we can hope to map the range of the California *Melospizæ*.

Measurements are given to show the relative sizes of Samuels' and the Salt Marsh Song Sparrows. They are taken from five skins of the white form and ten skins each of *samuelis* and the yellow *pusillula*.

		Wing.	Tail.	Exposed Culmen.
pusillula	White birds	2.24-2.37 (2.32)	2.06-2.18 (2.12)	.36-.40 (.39)
	Yellow birds	2.14-2.44 (2.29)	1.93-2.30 (2.10)	.38-.45 (.41)
samuelis		2.31-2.50 (2.38)	2.17-2.39 (2.29)	.41-.46 (.42)

Ammodramus samuelis Baird was described from two birds collected at Petaluma, Sonoma County, by E. Samuels. Skins from that exact locality not being available, three from San Geronimo, two from Ukiah and one from Cloverdale are here taken as probably representing this form. Five skins from the west coast of Mendocino County differ so remarkably from these and in fact from all others in my series of *samuelis*, some thirty skins, that I venture to give the coast bird a new name.

Melospiza melodia cleonensis, subsp. nov. MENDOCINO SONG SPARROW.

Subsp. char. Size of *M. m. samuelis* but lighter and more rusty; black markings of back more restricted; spots of breast broadly edged with rusty; black on side of head and neck almost entirely replaced by rusty or reddish brown.

Type. No. 288, ♀ worn nuptial plumage, McGregor Coll., Westport, Mendocino Co., California, May 28, 1889. Wing 2.28; tail 2.10; exposed culmen .42.

Co-type. No. 287, ♂ worn nuptial plumage, McGregor Coll., Westport, Mendocino Co., California, May 28, 1889. Wing 2.38; tail 2.22; exposed culmen .42.

Range. Coast of Mendocino County.

The name is taken from Cleone, the town where three of the specimens were collected.

Mr. A. W. Anthony has kindly loaned me a large series of song sparrows which he took on Coronado Island, Lower California. These are undoubtedly of the same variety as the sparrow on San Clemente Island. The range of *Melospiza melodia clementæ* is therefore extended to include the Mexican islands named.

If the specific name *Melospiza melodia* (Wilson) be reinstated as suggested in the *Auk* XVI, 183, then the song sparrow described by me in the March Bulletin should stand *Melospiza melodia ingersolli.*

Lassoing a California Vulture.

BY F. STEPHENS, WITCH CREEK, SAN DIEGO CO., CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 2, 1899.]

I HAD heard of California Vultures being lassoed, but had been somewhat skeptical of the actual occurrence, because I had never seen their near relatives, the Turkey Vultures, gorged to the necessary extent. As others may have doubted the probability of this statement also I will relate the circumstances of the capture of a California Vulture near here with a riata.

May 24, 1899, I was at the principal dairy of the Santa Ysabel Rancho. Late in the afternoon Massimo Morelli, a Swiss vaquero employed on the ranch, came to me and said he had that afternoon caught a California Vulture with his riata and it was then at one of the other dairies, alive in a box. I arranged to purchase it and sent a wagon after the bird, which returned with it after dark. As the box it was in was too small to allow the bird to stand upright I changed its quarters, but it seemed unable to stand up. I meant to keep it alive some time to study its habits in captivity and photograph it; however in the morning it was dead, greatly to my disappointment. On skinning it I found the flesh discolored on the lower part of the neck and believe the choking of the rope caused its death. The bird was an adult male in fair condition; weight 20 pounds; stomach nearly empty; length 45 inches; spread of wing 112 inches.

I have known Morelli several years, and know him to be reliable. The following is his account of the capture. He was out on the range looking after the stock as usual. Shortly after noon he saw this vulture at the carcass of a calf. As the bird seemed stupid he made a dash at it and threw his riata over its neck before it rose. He says the bird ran but did not seem able to fly. The bird proved difficult to handle, and struggled so that he was afraid it would get away, so he tied its wings together across its back with his handkerchief and finally had to lash the bird to a pole to keep it from flapping under his horse's feet, as he was afraid to drag it behind him too much. Massimo says when he caught the bird it disgorged and stunk horribly. From his manner I fancied that he received more of the veal than he liked. The bird struck him several severe blows with his bill.

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H. R. Painton of College Park, a well known member of the Club, is serving his second term as principal of the New Almaden, Cal., public school.

W. B. Judson of Los Angeles has returned after a two years' absence in Dawson City, where he had mining interests.

Some Winter Birds of the Lower Colorado Valley.

BY W. W. PRICE, STANFORD UNIVERSITY, CAL.

[Read before the Northern Division of the Cooper Orn. Club, July 1, 1899.]

FROM Nov. 25 to Dec. 15, 1898, was spent in the Lower Colorado Valley about Yuma, Arizona, on the Lower Colorado at the head of the Gulf of California. The following notes are given not with any idea of completeness, but merely as containing some of the more interesting facts then and there noted. The three weeks were exceptionally cold and stormy. The nights were often frosty, ice forming on rain-pools, even at the tide-water on the Gulf. Many of the small rodents and all the snakes and lizards had gone into hibernation.

Coming from the Colorado desert on the line of the railroad, into the valley of the Colorado, one passes over a gravelly mesa, thinly grown with *Larrea*, *Franseria*, *Chenopodium* and an occasional *Fonquiera* and *Olneya*. On reaching the alluvial bottoms, here several miles wide, a few mesquite trees (*Prosopis*) are met with and everywhere the gray-green arrow-weed (*Tessaria borealis*), forms a dense, almost impenetrable undergrowth from five to eight feet high. These thickets are the favorite haunts of Abert's Towhees and countless Intermediate Sparrows. Near the river and along the sloughs are occasional cottonwood trees. Here were seen many birds mentioned in the list that follows. One general feature of the usual Arizona landscape surprised me,—the apparent absence of cacti. Only one species was observed, an *Opuntia*, on the sandy mesa about Yuma. None were noted in the alluvial bottoms of the Colorado or at the head of the Gulf.

A word as to the topography. On the Arizona and Sonora side of the river the gently-sloping mesa stretches south and east many miles without a break in its surface, bounded only on the extreme eastern horizon by barren, desert mountains. On the Californian side, between the river and the lofty Cordillera, the isolated desert ranges are more numerous. Of these the Pinto, Cocopah and Myola are the largest and from a distance of a few miles seem absolutely destitute of vegetation. In this region much of the country is lower than the banks of the Colorado, and subject to overflow during the summer floods of June and July, when the snow melts at the sources of the river. A little south of the Arizona—Sonora line and about ten miles west of the river are some very remarkable hot springs and mud volcanoes. At the head of the Gulf are wide, level mud-flats made up of silt continually brought down by the river. On the Californian side these are of much greater extent,—desolate flats, forty or fifty miles long and from ten to twenty miles wide on which absolutely nothing grows. They lie close about the foothills of the desert mountains and are everywhere saline.

Over the southern part meander shallow sloughs of crystal water so intensely salt that great masses of pure rock salt cover the bottoms and are piled up in glistening banks along the margins. In places the surface of the flats is soft, slimy mud into which the foot sinks an inch or more; in other places the surface is hard, cracked by the sun and covered by a frost-like salt incrustation. This whole region is overflowed by the high spring and summer tides, the height of which is determined by the direction of the wind and the volume of water in the river. A southern gale at the time of the summer floods causes the highest rise in the tides. All along the river bank and gulf shore, and sometimes scattered far inland over the mud flats, are great "windrows" of drift brought down by the floods. In these may be noticed many kinds of woods:—logs of willow, cottonwood, pine and juniper with occasional railway ties and bridge timbers.

From Yuma southward to the Gulf of California there seem to be three distinctive floral areas, but the bird life does not appear so clearly differentiated. *First:* there is the flora of the sandy, gravelly mesa, more typically "desert" than that of either of the other floral areas. It is characterized by a rather uniform growth of *Larrea tridentata* through which are interspersed occasional bushes of *Asclepias subulata*, *Dalea emoryi*, *Fonquiera splendens*, *Olneya*———, *Franseria*——— *Chenopodium*——— and *Artimesia*———. The vegetation is nowhere dense; the individual plants are from 30 to 100 feet or more apart, often with sand wind-heaped about their bases. *Second:* the flora of the alluvial river-bottom, which may again be divided into the area annually overflowed by the river and that lying a few feet higher and adjoining the desert mesa. The flora changes immediately on entering the river bottom which is separated from the mesa by irregular bluffs 50 to 100 feet high. *Tessaria* abounds with occasional clumps of *Baccharis, Chenopodium*, *Atriplex*, a scattering growth of two mesquites, *Prosopis juliflora* and *P. pubescens.* Nearer the river and the many lagoons, which mark old river beds, are cottonwood, *Populus fremontii*, willow, *Salix* ———, with an undergrowth of tule, cane and occasional dense thickets of "wild hemp." Along the ditches and some of the overflowed land *Nicotania glauca*, *Xanthium canadense* and *Amaranthus* ——— grow in profusion. *Third*: on the lower river below the limit of willow, cottonwood and "hemp" and along the Gulf are wide meadows of a sea grass, *Uniola palmeri*, and scattering bunches of another *Chenopodium*, and a *Spirostachys*, both large bushes from three to eight feet high.

My route lay from Yuma south by team into Sonora about fifty miles south of the line, thence by boat fifty miles to the mouth of the river and south on the Gulf about forty miles to a point on the Californian shore; thence back to Yuma by land, usually near the river bank.

1 *Aechmophorus occidentalis.* Western Grebe. A large grebe which I took to be of this species was often seen about our boat at the mouth of the Colorado.

2 *Podilymbus podiceps.* Pied-billed Grebe. Several specimens seen in a slough about six miles south of Yuma.

3 *Uria* sp? Guillemot. Abundant off Montague Island at the head of the Gulf.

4 *Larus occidentalis.* Western Gull. Abundant along the Gulf shore, and noted at many points along the river to within forty miles of Yuma.

5 *Larus delawarensis.* ?. Ring-billed Gull. Two small gulls were observed wheeling over a freshly plowed field near Yuma Nov. 29. They sometimes dropped for a moment to the ground as if picking up insects or worms.

6 *Sterna* ———sp? A large tern was noted on the Gulf.

7 *Sterna* ———sp? A tern about the size of *S. fosteri* was seen following the tides back and forth on the lower river and opposite Montague Island.

8 *Phalacrocorax penicillatus.* ? Brandt's Cormorant. A large cormorant was observed along the lower river but no specimens were taken.

9 *Pelecanus erythrorhynchos.* Am. White Pelican. Extremely abundant along the lower river and Gulf. On the 10th of December hundreds of flocks were observed flying in a southerly direction over a point 50 miles north of the Gulf. At times several flocks would unite into one immense gathering and fairly darken the sky with their evolutions. This bird was noted on all the bars along the river and often would be seen fishing.

10 *Anas boschas.* Mallard. Common; several shot.

11 *Anas penelope.* Widgeon. A small flock seen on a lagoon south of Yuma Nov. 27.

12 *Anas carolinensis.* Green-winged Teal. Common.

13 *Spatula clypeata.* Shoveller. Common at many points along the river.

14 *Aythya affinis.* Lesser Scaup Duck. One was shot on the lower river.

15 *Aythya collaris.* ? Ring-necked Duck. Large flocks of a duck I supposed to be of this species were seen at the head of the Gulf.

16 *Charitonetta albeola.* Buffle-head. Several seen on the lower river.

17 *Oidemia* ———sp? Scoter. Noted in Gulf below Montague Island.

18 *Oidemia deglandi.* White-winged Scoter. Noted near the Californian shore twenty miles below Montague Island.

19 *Branta* ———sp? Brant. A brant, probably *B. bernicla*, was abundant everywhere along the river south of the line. Great numbers were seen on a salt pond, called Laguna Salada, about forty miles south of the line. They were especially abundant on the various mud flats near the "Hardy" slough.

20 *Ardea herodias.* GREAT BLUE HERON. Abundant along the whole river. On the Californian shore of the Gulf 30 or 40 miles south of the mouth of the river they were sometimes seen, three or four congregated together on the desolate shore line.

21 *Ardea virescens.* GREEN HERON. One was shot about six miles south of Yuma.

22 *Nycticorax nycticorax nævius.* BLACK-CROWNED NIGHT HERON. Common along the river and sloughs, from Yuma south to within ten miles of the mouth of the river.

23 *Grus mexicana.* SANDHILL CRANE. Abundant at a salt flat, Laguna Salada, and often seen along the river. According to the Mexicans they feed in large numbers on the bulbous root of some plant on the over-flowed ground and are numerous according to the abundance of this food.

24 *Fulica americana.* AMERICAN COOT. Common on all the fresh water lagoons and sloughs.

25 *Tringa bairdi.* BAIRD'S SANDPIPER. Abundant along the river and Gulf shore.

26 *Ereunetes occidentalis.* WESTERN SANDPIPER. A few sandpipers were noted along the Colorado at Yuma.

27 *Limosa fedoa.* MARBLED GODWIT. Abundant on mud shore line about 30 miles below the mouth of the Colorado. A dozen were killed with a single discharge of the gun.

28 *Symphemia semipalmata inornata.* WESTERN WILLET. Common along the river; often three or four could be seen together on the mud-flats at the water's edge.

29 *Numenius longirostris.* LONG-BILLED CURLEW. Common on the lower river and often seen on the mesa many miles from water.

30 *Aegialitis vocifera.* KILLDEER. Not uncommon about Yuma and south to salt water in the river.

31 *Callipepla gambeli.* GAMBEL'S PARTRIDGE. Abundant in the river bottom of the Colorado to about ten miles above the mouth. Here the last timber gives way to the wide salt marshes and mud flats.

32 *Zenaidura macroura.* MOURNING DOVE. Common in Colorado Valley about Yuma.

33 *Columbigallina passerina pallescens.* MEXICAN GROUND DOVE. Two or three individuals were seen a few miles south of Yuma Nov. 27 and Dec. 13.

34 *Cathartes aura.* TURKEY VULTURE. Noted about Yuma.

35 *Accipiter velox.* SHARP-SHINNED HAWK. Noted many times along the river in the thickets of willow and cottonwood.

36 *Accipiter cooperi.* COOPER'S HAWK. A single specimen was shot by a slough near Yuma.

37 *Buteo borealis calurus.* WESTERN RED-TAIL. Common over the whole region north of salt water in the river.

38 *Buteo abbreviatus.* ZONE-TAILED HAWK. A great fire in the marsh lands and cane-brakes about fifty miles south of the Arizona line Dec. 3, attracted hundreds of these birds, undoubtedly to prey upon the abundant cotton rats (*Sgmodon*), and other rodents driven from their retreats by the heat. Some were circling high in the air, others wheeling or plunging into the dense black smoke. A few individuals of this hawk were seen at Yuma.

39 *Aquila chrysætos.* GOLDEN EAGLE. A single specimen was seen on the bank of the Colorado, a short distance above Montague Island.

40 *Falco peregrinus anatum.* DUCK HAWK. One was observed on the Californian shore of the Gulf below Montague Island.

41 *Falco sparverius deserticolus.* DESERT SPARROW HAWK. Common everywhere along the river. When we were out on the Gulf many miles from land, a male alighted for a moment on the boom of our little schooner.

42 *Polyborus cheriway.* ? AUDUBON'S CARACARA. A bird I took to be of this

species was seen by a slough south of Yuma.

43 *Asio accipitrinus.* SHORT-EARED OWL. Seen only once, Dec. 4, on a marsh on the Lower Colorado.

44 *Megascops asio trichopsis.* ? MEXICAN SCREECH OWL. The call of this or a nearly related owl was heard about our camps along the river.

45 *Bubo virginianus subarticus.* WESTERN HORNED OWL. Several were seen at night-fall along the river; they were often heard "hooting" at night.

46 *Speotyto cunicularia hypogæ.* BURROWING OWL. One seen at its burrow on the mesa near Yuma.

47 *Geococcyx californianus.* ROADRUNNER. Common about Yuma and south nearly to the Gulf.

48 *Ceryle alcyon.* BELTED KINGFISHER. A few were seen along the river.

49 *Dryobates scalaris bairdi.* BAIRD'S WOODPECKER. Common in the river bottom and south as far as the timber extends.

50 *Melanerpes uropygialis.* GILA WOODPECKER. Common wherever there was timber along the river bottoms.

51 *Calaptes cafer.* RED-SHAFTED FLICKER. Common in the river bottom.

52 *Phalænoptilus nuttalli nitidus.* ? POOR WILL. A Poor-will alighted on an open sandy spot above camp on the evening of Dec. 2. Seen but not taken.

53 *Trochilus alexandri.* ? BLACK-CHINNED HUMMINGBIRD. A small hummer was seen about the blossoms of the tree tobacco near Yuma.

54 *Sayornis saya.* SAY'S PHŒBE. Common about Yuma and south to the Gulf. I saw one apparently at home on the barren foot-hills west of the mud flats and about twenty miles south of the mouth of the Colorado.

55 *Sayornis nigricans.* BLACK PHŒBE. Several seen along the Colorado.

56 *Pyrocephalus rubineus mexicanus.* VERMILION FLYCATCHER. Common in the river bottom south of Yuma, usually near the neighborhood of water.

57 *Otocoris alpestris arenicola.* ? DESERT HORNED LARK. Seen on the mesa about Yuma and on sandy soil along the lower Colorado.

58 *Corvus corax sinuatus.* ? AMERICAN RAVEN. Common about Yuma. The birds seen may possibly have been the White-necked Raven, as no specimens were examined.

59 *Molothrus ater obscurus.* DWARF COWBIRD. Abundant about corrals at Yuma.

60 *Agelaius phœniceus longirostris.* SONORAN RED-WINGED BLACKBIRD. A few seen about Yuma and along sloughs a few miles south of the line.

61 *Sturnella magna neglecta.* ? WESTERN MEADOWLARK. A meadowlark was common in hay fields in the bottoms south of Yuma.

62 *Scolecophagus cyanocephalus.* BREWER'S BLACKBIRD. Common about Yuma and at many points along the river.

63 *Carpodacus mexicanus frontalis.* HOUSE FINCH. Abundant in great flocks in the bottoms.

64 *Astragalinus lawrencei.* LAWRENCE'S GOLDFINCH. A few birds seen about Yuma and along the river. On Dec. 2 immense flocks were seen feeding on the seeds of *Amaranthus* at the line.

65 *Poœcetes gramineus confinus.* WESTERN VESPER SPARROW. Two or three were seen in the bottoms south of Yuma.

66 *Ammodramus sandwichensis alaudinus.* WESTERN SAVANNA SPARROW. A few seen in hay-fields south of Yuma.

67 *Ammodramus rostratus guttatus.* ? ST. LUCAS LARGE-BILLED SPARROW. Quite common in the marsh lands on the lower river and head of the gulf. It was not seen away from the coarse sea grass, *Uniola palmeri.*

68 *Chondestes grammacus strigatus.* WESTERN LARK SPARROW. A few were seen about Yuma and on the open fields in the river bottom.

69 *Zonotrichia leucophrys intermedia.* INTERMEDIATE SPARROW. Extremely abundant all over the bottom lands wherever there were coarse weeds or brush wood.

70 *Spizella socialis arizonæ.* Western Chipping Sparrow. A single specimen was shot on the mesa at Yuma Nov. 27.

71 *Spizella breweri.* Brewer's Sparrow. Seen only on the mesa near Yuma.

72 *Junco oregonus.* ? Oregon Junco. A small flock of juncos was seen in a willow thicket near the line, Dec. 2.

73 *Amphispiza belli cinera.* ? Gray Sage Sparrow. A few were seen in dense thickets of *Atriplex* near Yuma.

74 *Melospiza fasciata fallax.* Desert Song Sparrow. Common in damp thickets along the Colorado. I did not observe a song sparrow in the salt marshes.

75 *Pipilo aberti.* Abert's Towhee. Extremely abundant in the river bottoms.

76 *Phainopepla nitens.* Phainopepla. Abundant wherever there were mesquite trees infested with mistletoe. With many other birds they feed upon the ripe berries.

77 *Lanius ludovicianus excubitorides.* White-rumped Shrike. Several were seen on the mesa and in the river bottom.

78 *Dendroica auduboni.* Audubon's Warbler. Abundant everywhere in the river bottom.

79 *Geothlypis trichas occidentalis.* Western Yellow-throat. Not uncommon in the river bottom among tule and cane thickets.

80 *Anthus pensilvanicus* American Pipit. Common along the river from Yuma to salt water. Often seen in scattered flocks on the sand bars and low banks.

81 *Oroscoptes montanus.* Sage Thrasher. Common in the dry brushy thickets in the river bottom.

82 *Mimus polyglottos.* Mockingbird. Common in the dryer portions of the river bottom.

83 *Heleodytes brunneicapillus.* Cactus Wren. Common among mesquite trees in river bottom.

84 *Salpinctes obsoletus.* Rock Wren. A few were seen about deserted and ruined buildings in Yuma.

85 *Thryothorus bewickii leucogaster.* Baird's Wren. Observed only once, Dec. 1, on the bottom near the Sonora line.

86 *Cistothorus palustris paludicola.* Tule Wren. Common in tule tracts and about the salt marshes at the head of the Gulf.

87 *Auriparus flaviceps.* Verdin. Common in mesquite and willow thickets; sometimes seen in scattered flocks of ten or twenty.

88 *Regulus calendula.* Ruby-crowned Kinglet. Common in bottoms wherever there were trees and bushes.

89 *Polioptila plumbea.* Plumbeous Gnatcatcher. A single specimen was seen on the mesa south of the line.

90 *Sialia mexicana occidentalis.* Western Bluebird. Common in the river bottom, feeding largely on the ripe berries of mistletoe.

91 *Sialia arctica.* Mountain Bluebird. Common about alfalfa fields in the river bottom. I did not observe this species feeding on the mistletoe.

Echoes from the Field.

Bobolink at Monterey and White-throated Sparrow at Santa Cruz, Cal. Mr. C. Littlejohn's capture of a Bobolink at Redwood City is not the first record for California. On Oct. 14, 1896, I shot a female Bobolink near Monterey. This capture has been reported at different times, but so far as I am aware, has not yet appeared in print.

On New Year's Day, 1894, I took at Santa Cruz a male White-throated Sparrow and later saw another. This was the fifth record for the state, four others having been previously reported (Merriam). These with the four reported by Mr. McGregor gives a total of nine White-throated Sparrows for California.—Geo. F. Breninger, Phoenix, Arizona.

Nesting Notes from Los Angeles, Cal. SNOWY PLOVER (*Aegialitis nivosa*), Redondo, Los Angeles Co., Cal., Apr. 25, 1899. Set of three taken. Incubation so far advanced that the set could not be saved. The earliest nesting date noted in Mr. Grinnell's "List of the Birds of Los Angeles Co.," is May 1, 1897.

AMERICAN BITTERN (*Botaurus lentiginosus*). Alamitos, Los Angeles Co., Cal., May 14, 1899. While tramping through the marsh at the north-east end of Alamitos Bay an American Bittern was flushed and upon search a nest containing three eggs was found. The nest was composed of dry marsh grass and lined with finer grass of the same variety; it was nearly flat on top with only a slight depression in the center to hold the eggs in place. The eggs were fresh. This is the first instance on record of this bird breeding in Los Angeles Co.

MARSH HAWK (*Circus hudsonius*). Alamitos, May 14, 1899. A nest containing five young was found by Mr. H. J. Leland in a bunch of weeds and nettles, surrounded by marsh grass which had recently been cut with a mowing machine, the operator being kind enough to leave the nest and young birds alone. A few of the weeds had been broken down to a height of about eight inches, on which a nest of coarse sticks and straw was placed. The nest was flat on top and measured fourteen inches across. The young ranged in size from a little downy fellow to one nearly quarter-grown.

COMMON TURNSTONE (*Arenaria interpres*). I have an immature bird of this species taken at Long Beach on Aug. 24, 1897. Mr. Grinnell in his list does not note the occurrence of this bird in Los Angeles Co.

HOWARD ROBERTSON, Sta. A. Los Angeles, Cal.

Notes on the Black Swift in Monterey Co., Cal. While spending a few days in Monterey Co. on a fishing trip last June I secured several skins of the Black Swift and noted one or two things in their actions that might prove of interest. The birds were seen principally on the tops of the high ridges in company with Western Martins. The rapidity with which they flew caused many exclamations of astonishment from our party and made our necks tired from continual twisting to keep two birds in sight at once. My companion, Mr. F. H. Holmes, remarked that a "rubber neck" would be a great convenience to any one watching the swifts. One moment a bird would be directly over us and in a few seconds perhaps be a half mile away. Judging from the company they kept I am inclined to think they nest in trees with the martins rather than in the cliffs with the White-throated Swifts.

The latter species seemed to keep more in the canons, flying and circling about near the cliffs. I climbed up and had the pleasure of looking into the crack of a cliff where one or two of their nests were hidden, but could not possibly see or obtain the eggs which were probably in several feet. Three or four Audubon's ? Hermit Thrushes were heard singing, usually about dark, high up in the thick redwoods. A lonely Cal. Vulture was seen two or three times sailing about near the summit of the range. While coming home along the sea coast a flock of 40 or 50 Heermann's Gulls was noted flying north close to shore.

R. H. BECK, Berryessa, Cal., Aug. 14, '99.

Notes from Los Angeles, Cal. *Spizella breweri*. On May 2, 1899, a great many Brewer's Sparrows were observed in the San Fernando Valley. The majority of those seen were in pairs, and the males were generally sitting on the tops of the bushes, singing. On May 24 we revisited the place and while they were not as numerous as before, quite a number were seen. One nest was found containing three young. It was built in a candle cactus near the main stem and about one foot from the ground, and was composed mainly of small rootlets and was not apparently lined with any finer material. The young were only a day or two old.

Zonotrichia leucophrys. Although this bird has not been recorded from Los Angeles County before, I believe that it is of regular occurrence here, though probably not in any great numbers. On April 22, 1898, I shot an adult female from a flock of Intermediate Sparrows. On April 26, 1899, I secured another, also a female, and on March 29, 1899, I saw one which I did not shoot. It was feeding in the yard with the chickens and as I was within ten feet of it I could easily distinguish it from the Intermediate Sparrows about.

Junco hyemalis. On Nov. 3, 1898, I shot two Slate-colored Juncos, both males. These two birds were by themselves, though I saw a large flock of Thurber's Juncos but a short distance from where I secured them.

Coccothraustes vespertinus montanus. On Oct. 30, 1898, on the summit of Mt. Wilson, I secured two adult female Western Evening Grosbeaks. No others were seen during the two days we remained in the locality.

Sitta canadensis. In the fall of 1898 I found the Canada Nuthatch comparatively abundant in the vicinity of Los Angeles. I shot the first on Sept. 16 and was very much surprised at finding this species so far from the mountains. A few days later I secured another and from then on they were seen almost daily until about the middle of October when they disappeared. Mr. Robertson informs me that he saw one in a pepper tree at the extreme end of Point Firmin on Sept. 8, 1898.

Albinos. *Zonotrichia leucophyrs intermedia.* I shot a partial albino Intermediate Sparrow on Feb. 5, 1899. This bird is normal except for the tail, which is white with a dusky bar across it near the tip. One tail feather is normal in color and is about ⅛ inch longer than the others.

Agelaius phœniceus. On May 7, 1899, I saw a male Redwinged Blackbird, with almost all the primaries and secondaries of each wing, pure white. I did not shoot it and have seen it several times since in the same place, where there is a colony breeding. H. S. Swarth, Bradbury Blk., Los Angeles, Cal.

Nesting of the California Cuckoo. Six o'clock in the evening of June 17, 1899, found me trudging wearily along the bank of a running stream about ten miles north of San Jose. I had been out all day and having had poor luck had given up collecting and was walking back the wagon road along the creek bank to my horse. Between the stream and the road is a growth of young willow and maple trees into which I cast occasional glances. Hearing a rustle, and seeing a bird leave a clump of willows I stopped, and noticed a nest near the top of one of the trees, and took it to be a nest of the Black-headed Grosbeak. One of the boys who was with me climbed to the nest and reported three plain blue eggs, which I at once concluded were eggs of the California Cuckoo.

The bird left the vicinity and did not return, but the glance I had of her as she left the trees was enough to assure me that my identification was correct. The nest was at the top of a small willow, in a fork, nine feet from the ground and was a very frail structure, composed of twigs, straw and rootlets, well hollowed, and sparingly lined with fine grasses. The eggs are three in number, greenish-blue in color and very much resemble eggs of the Yellow-billed Cuckoo in my collection. One of them was fresh, the others slightly incubated. The same day I found a shell of an egg of this species on the ground, which had evidently been hatched, but a half hour's search failed to reveal the nest. At another place a bird was seen so I conclude that they breed sparingly in the locality every year. Wm. L. Atkinson, Santa Clara, Cal. Aug. 13, '99.

Notes from Alameda, Cal. Oct. 6, 1898, I took a Western Winter Wren, the third I ever noted in this district. Shot a ♀ Californian Thrasher that was singing, perched on top of a bush. Like many others of its kind it was covered with vermin, especially on the neck and breast. Perhaps the bird's bill is so long as to prevent it reaching these parts. Does the ♀ usually sing?

American Pipits were noted sparingly on the Coast Range Mts. along the boundary of Alameda and Contra Costa counties on April 1. These were late to migrate or were possibly about to breed there. Long-tailed Chats were common as usual in localities visited this season, but the birds were seldom seen on account of their shyness. A male was perched upon a small tree-top along the county road in the town of Haywards, singing away in apparent security.

I discovered three nests of the Western Yellowthroat on May 8 in a patch of rushes, overgrown with willows. Two were deserted and the third, which was quite large and elaborately constructed of dead blades of cat-tails and sparsely lined with the long hair of cattle, was thrust sideways, by a cow perhaps, and contained four fresh eggs, two of which were slightly damaged.

In about one-half of the completed nests of Pileolated Warbler I have found, the bird has deserted her nest and the immediate premises. On April 30, 1899, Mr. Harry Sheldon and I were collecting along a creek when he made the unusual find of a nest and *five* eggs of the Russet-backed Thrush, which I secured.—D. A. COHEN, Alameda, Cal., July 15, '99.

* * * * *

The Nesting Haunts of the Black-throated Gray Warbler.

THE accompanying plate represents one of those charming bits of woodland which Messrs. Henry W. Carriger, John M. Welch and the writer were permitted to pass through in the Sierra Nevada Mts. early in June of this year. The camera has preserved the mere outlines of the scene, but the freshness and brilliancy of the morning and the ecstatic songs of the woods' feathered denizens are of necessity lacking. We were roaming aimlessly through the woods, following only such paths as fancy might dictate, when Mr. Carriger's attention was drawn to a neat, greyish nest on the drooping limb of a pine, to which a pair of Black-throated Gray Warblers presently claimed ownership. Being near a road-house a short ladder was secured later in the day and the set collected on its original limb.

Mr. Carriger contributes the following notes on this species from his '99 experiences: "The Black-throated Gray Warbler was probably the commonest warbler met with on our trip and a number of nests were located. Several were found in the deer brush (*Ceanothus*) at from five to nine feet up and two were placed in pines, one twelve feet up on a small limb (shown in the illustration) and another 52 feet up on a horizontal limb. The birds showed little anxiety and would fly off at our approach and remain near by, chirping occasionally. While photographing the nest both birds remained in the pine overhead but did not approach nearer than ten feet. While we often heard this warbler singing, few were noticed excepting on such occasions as when we collected a nest."

The scene portrayed in the plate is an ideal one of the open growths in the Sierras. It seems truly a transformation to step from the deep, dark timber where the reign of Silence is seldom broken and where the birds seem loath to commit the sacrilege of song, to the open hillsides where the carpet of luxuriant "mountain misery" is ever green, and where the sunlight sifts down in fantastic shafts through the pines and cedars with beautiful varied effects. Here the warblers and vireos pour forth their most exquisite songs and the creepers and nuthatches industriously gyrate up and down the oaks and pines while the woodpeckers and sapsuckers drum idly on the dead stubs. Here all bird life dwells in seeming harmony, and as recurrent thoughts carry one back to the hum-drum of city life I almost wish I might linger alway in this idyllic spot.

C. BARLOW.

* * *

MR. RALPH ARNOLD, a member of the Cooper Club, was united in marriage to Miss Frankie Winninette Stokes at Alhambra, Cal., on July 12, 1899. Mr. Arnold has always been one of the most active members of the Club and has done extensive work in ornithology throughout Los Angeles County, his former home. He was president and a graduate of the class of '99 of Stanford University, where his popularity throughout his several years' course was unbounded. As leader of the Stanford Mandolin Club at the University and on its numerous tours, he added constantly to an already large circle of friends, all of whom will join in cordially congratulating him as one most worthy of the fair bride he has won from the Southland. Mr. and Mrs. Arnold will locate at Menlo Park, Cal.

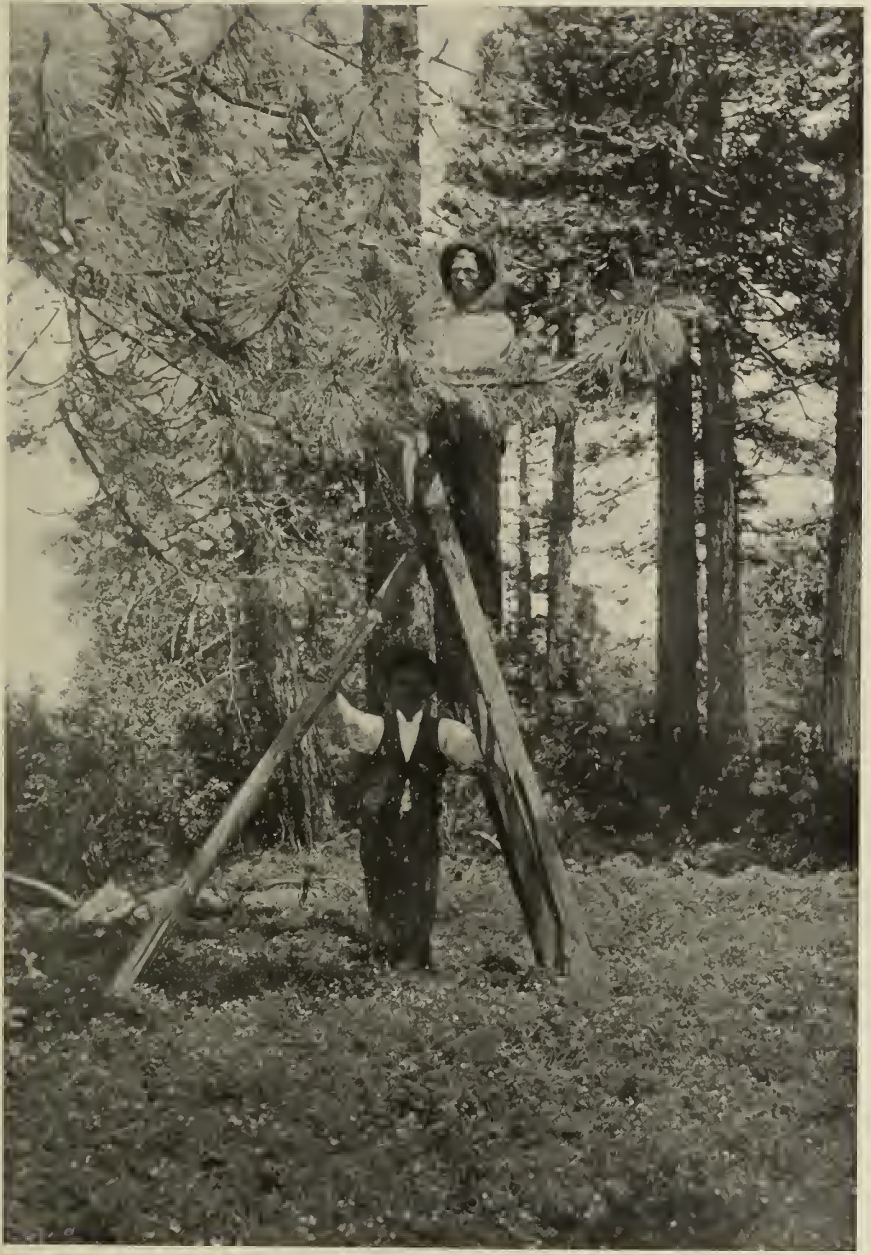

Photo by C. Barlow.

NESTING HAUNTS OF THE BLACK-THROATED GRAY WARBLER.

(Showing H. W. Carriger collecting nest, in company with Jno. M. Welch.)

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When extra copies are desired, they should be ordered at the time of communicating the article.

Write plainly and confine your article to one side of the sheet.

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This issue of the Bulletin was mailed Sep. 15.

EDITORIAL NOTES.

With this issue the BULLETIN publishes Mr. W. W. Price's list of the winter birds of the Lower Colorado Valley which is the first of numerous valuable lists to appear in its columns from time to time. Local lists, those covering defined areas which are subject to certain peculiar climatic conditions, as well as lists which represent the ornithology of certain mountainous districts or rivers, all have a value, that of a purely local list being of relatively less value than one covering a generally known region of interest. The value of a list is enhanced in a measure by its topographical preface which should and usually does precede the list proper, thus giving the reader a perfect idea of the environments in which the birds noted are found, and from which much may be learned of the preferences of individual bird species for certain faunal areas.

A list of any section of unusual interest once recorded becomes a basis for future workers in the same region and there remain many areas in California from which thorough lists would be of value to present and future bird students. Each member of the Club should work up as complete a list as possible of his county, to which he may add from year to year, always finding in the extension of his list an incentive to hunt out and add new records as time permits him to go afield.

Contributions which have appeared in the BULLETIN for 1899, with very few exceptions, have been from members of the Cooper Club. All articles appearing in the BULLETIN constitute, in a sense, the proceedings of the Club, and papers which are indicated as having been read before a meeting of either Division do not of necessity bear any distinction over those which are printed without the usual presentation before the Club. The transactions of the Club are formally presented to a majority of its members for the first time through the BULLETIN and whether or not a paper is given a formal reading depends largely upon the date of its receipt. Thus all contributions are placed on an equal footing in-so far as their status as a part of the "proceedings" of the Club is concerned.

Our modest though wide-awake contemporary, the *Oologist*, has introduced a pleasing, valuable and interesting feature in its June-July number in the form of a complete bibliography of the ornithological articles appearing in current North American scientific journals. Thus at a glance, one may know just what has been published from the titles of the articles, and by a simple index the magazine in which the article was printed is indicated. This department of the *Oologist* will prove a satisfaction to all ornithological workers, who will also appreciate a recent photograph of Mr. Lattin appearing as frontispiece in the same issue.

In the *Auk* for July, 1899, appears a brief, sensible discourse in which is shown the fallacy of the argument recently introduced by various writers in attempting to mitigate the sentiment which has attached to the needless killing of birds by bringing up the proposition that it is just as cruel to kill domestic fowls. The writer shows that in the case of the domestic fowl it is within the province of man, and to his interests, to keep even the ratio of supply to those destroyed. With the birds, man's agency is simply to kill, without the means or ability to restore.

With the next and last number of the year we shall print a complete list of the members of the Club, together with their current addresses. By the way, non-subscribers will observe that the BULLETIN is nearing its first mile stone, having appeared promptly on or before the fifteenth of each publishing month, and those who wish the file complete will do well to order while it is possible to secure the back numbers. The BULLETIN aims to present the latest and freshest bird news, a point on which we invite comparison.

What has become of the Life History Committee of the Southern Division and the excellent plan of work upon which it commenced?

A charming paper by Mr. A. W. Anthony entitled "A Night at Sea" will be one of the features of our November number.

Correspondence.

The Individuality of Eggs.

In the July BULLETIN Mr. D. A. Cohen tells of the individuality of the Oregon Towhee as observed by him, peculiar characteristics in eggs of particular pairs reappearing from season to season, and states: "I can never think otherwise than that Major Bendire was correct in asserting that eggs of individual birds in consecutive sets bear marked resemblance to each other."

I am inclined to believe Mr. Cohen in error in crediting the theory of individuality to the lamented Major Bendire. That learned Oologist was, in fact, somewhat skeptical when the writer first published a paper in *The Nidologist* on this interesting subject, taking for example the nidification of the Golden Eagle as observed in the case of particular pairs consecutively for a number of years.

Mr. William Steinbeck of Hollister, Cal., has assured me that his extensive experience in collecting sets of eggs of the Golden Eagle in San Benito county fully bears out the assertion of the theory of individuality. Mr. A. M. Ingersoll informs me that he has collected eggs from a certain Golden Eagle's nest near San Diego for five years past, and in each instance one egg of the set was almost immaculate. In contravention of the theory which these instances support, Major Bendire stated of this eagle in "Life Histories" (Vol. I): "As these birds are usually seen only in pairs at all times of the year, I am inclined to believe they remain mated for life, notwithstanding the fact that the eggs differ very greatly in markings from year to year, although coming from the same nest and evidently from the same pair of birds."

H. R. TAYLOR, Alameda, Cal.

* * *

A PROTEST.

In the *Auk* V, Apr., 1888, p. 168, Mr. J. Amory Jeffries describes *Trochilus violajugulum*, taken April 5, 1883 at Santa Barbara, Cal. The type has remained unique until this day and it is now high time, I think, to enter a protest against retaining this name upon the Checklist of North American Birds. With the numerous collectors and active work that has been done in California since that date, it is hardly necessary to point out that if this was a valid species other individuals would have been secured long ere now. Whether this bird is a hybrid or not is immaterial, as it surely deserves no better place among the North American birds than Townsend's Bunting, Lawrence's, Cincinnati, Brewster's or Carbonated Warblers, Cuvier's Kinglet, etc. This form has stood upon the Checklist long enough to be repudiated and its geographical distribution restricted to the "hypothetical list," which is its undoubted place of residence, and it is to be sincerely hoped that when the Cooper Club issues its list of California birds that this will be placed upon such a list of the Club's *resume* of the avi-fauna of the state.

Along with the above species it would also be well for members of Committee on the State List to inquire into the claim of *Porzana coturniculus* (Ridgway) [Amer. Nat. VII, Feb. 1874, p. 111 and Proc. U. S. Nat. Mus. XIII, 1890, pp. 309-311] has to a place among the birds of California. The recent extensive collecting on the Farallones has demonstrated its absence from the islands. Was not the type specimen erroneously labeled by Mr. T. C. Martin, who presented it to the U. S. National Museum? At any rate this matter will also stand some further investigation. If it proves to be a straggler from the Galapagos as suggested by Mr. Ridgway, well and good, but if not, and the type remains unique, then it deserves a similar fate to *Trochilus violajugulum*.

Two minor notes on the 2nd edition of the Checklist which have come under my notice may interest members of the Club. In the ninth supplement to the Checklist, *Auk* XVI, Jan., 1899, p. 111, a new hummingbird, *Atthis morcomi* RIDGWAY, is added to the list. The A. O. U. Committee fails to insert the generic reference before it, hence we have on p. 176 the specific but no generic reference. I have not access to the original literature, but Ridgway [1] and Elliott [2] both give it the same. Hence should we not insert the following on p. 176 before No. 435:—

Genus *Atthis* RIECHENBACH.

Atthis, Reich. Aufz. der Colib., 1853, 12. Type, *Ornysmia heloisa*, Less and DeLattr.

Under *Æstrelata scalaris* BREWSTER, p. 34, the reference should read:—*Auk* III, July 1886, 390 (not 300).

ROBERT BAIRD MCLAIN, Wheeling, W. Va.

[1] Hummingbirds, Rept. Nat. Mus. 1890 (1892) p. 380.
[2] Class and Syn. Trochil, 1879, p. 113.

* * *

Book Reviews.

WATER BIRDS OF THE PACIFIC DISTRICT.—By Lyman Belding, April, 1886, pp. 246. Manuscript type-written copy. (Received by the Cooper Ornithological Club March 4, 1897).

This volume was prepared by Mr. Belding for the Division of Economic Ornithology and Mammalogy of the United States Department of Agriculture, now the Biological Survey. The book was intended to serve as a companion volume to *Land Birds of the Pacific District* and had it been printed ten years ago, would have been of the greatest service to workers along our coast. Mr. Belding has generously presented his bound manuscript to the Cooper Club. In the preface written especially to the Club, Mr. Belding says:

"The notes on water birds which I received from the observers of the district are still incorporated in this volume, except a few of Mr. Emerson's, which came too late for insertion.

"The reversing of the Check List of the A. O. U. whereby the water birds came first in the list, instead of last, as formerly, found me unprepared to give the time to the water birds that I needed, and supposing that the water birds would soon be needed for publication, I made a hurried compilation, finished it in five or six weeks and this is the result."

Water Birds contains remarks on 156 species, compiled largely from published works of Baird, Ridgway, Cooper, Suckley, Heermann,

C. H. Townsend, Evermann, Henshaw and Bendire. These are supplemented by original notes supplied by various observers of the Pacific District, including about the same men as furnished notes for the *Land Birds*. The habitat of each species is given under the trivial and scientific names, followed by notes on distribution, migration, feeding, nesting and general habits. The notes on most species are very copious, covering in many cases three and four pages. Each statement is preceded by the name of the author, thus following the plan which was found so satisfactory in the previous volume. The work is especially valuable to us on account of the exact records made for California species, of which notes Mr. Belding has supplied a large portion from his own observations. In spite of its being thirteen years old the book would furnish us with a good basis for our proposed State List.

Mr. Belding's own extensive and long continued observations on this coast have particularly fitted him for the preparation of this much-needed paper and we regret that it has not been made available for general use, as it is by far the best thing of its kind which has been done for the state. Some would perhaps object that the quotations are too lengthy, but I believe this to be one of its virtues, too often lacking in scientific works of a similar nature.

R. C. M.

In a letter received from Dawson City under date of Aug. 2, Mr. Wilfred H. Osgood of the Biological Survey expedition writes of the good health and good work of the party to date. Among others the eggs of the Varied Thrush had been taken.

Official Minutes of Northern Division.

Regular bi-monthly meeting held at Haywards, Cal., with W. Otto Emerson presiding. W. H. Kobbe of Ft. Mason, San Francisco, was elected to active membership. Bills amounting to $3.73 for current expenses were allowed the secretary. The names of Cloud Rutter of Stanford University and Lawrence Kessing of Alameda were proposed for active membership. Votes of thanks were tendered the Buffalo Society of Natural Sciences, G. Frean Morcom, H. R. Taylor, R. H. Beck and H. W. Carriger for donations to the club. A half-tone of the adopted club crest was ordered made at once. A petition to change the present name of the BULLETIN to that of "The Condor" was introduced in writing, unanimously passed, and referred to the Southern Division for action. If adopted, this change will take effect with the January issue. Mr. Barlow read a letter from W. H. Osgood, dated Dawson City. Papers were read as follows: "A Northern Record for the Black-chinned Sparrow," by D. A. Cohen; "A Night at Sea," by A. W. Anthony; "Lassoing a California Vulture," by F. Stephens, and "Nesting of *Parus rufescens* in Washington," by W. H. Kobbe. Adjourned to meet Nov. 4.

C. BARLOW, Division Secretary.

Official Minutes of Southern Division.

The August meeting of the Southern Division was held Aug. 30 at 403 Bradbury Block, Los Angeles, Pres. McCormick presiding. Seven members were present. The following members were dropped from the roll for nonpayment of dues: Roy B. Blackman, R. L. Garnier, F. B. Jewett, Bert Robbins, B. H. Swales, L. P. Williams and Otto J. Zahn. The name of H. H. Dunn of Fullerton was proposed for active membership by Mr. Daggett. Messrs. Swarth and Robertson were appointed a committee to arrange for the October outing meeting. Mr. Daggett gave an interesting account of his trip to Mt. Whitney and read extracts from a letter recently received from Jos. Grinnell, now at Cape Nome, Alaska. The following papers were read: "The Flycatchers of Arizona," (embracing the Sulphur-bellied, Olivaceous and Buff-breasted) by O. W. Howard; "Notes on the Gray-crowned Leucosticte in the Vicinity of Mt. Whitney," by F. S. Daggett, and two papers from the Northern Division.

HOWARD ROBERTSON,
Division Secretary.

Publications Received.

Bird Lore, I, No. 4, Aug., 1899.

Bulletin of the Buffalo Society of Nat. Sciences, Vols. II, III, IV, V complete and Vol. VI, No. 1.

Bulletin of the Dept. of Agriculture, Nos. 2, 4 and 5, (to complete files).

Bulletin Michigan Ornithological Club, III, No. 2, April, 1899.

Giornale Ornitilogico Italiano, III, No. 15—16, Mch.,—April, 1899.

Journal of the Maine Ornithological Society, I, No. 3, July, 1899.

Maine Sportsman, VI, Nos. 71 and 72, July and August, 1899.

Museum, V, Nos. 9 and 10, July and August, 1899.

North American Fauna, Nos. 11 and 12, (to complete files.)

North American Fauna, No. 15, Aug. 8, 1899.

Oologist, XVI, Nos. 6, 7 and 8, June, July and August, 1899.

Ornithologisches Jahrbuch, X, Nos. 1, 2, 3 and 4, Jan.-Aug., 1899.

Osprey, III, No. 10, June, 1899.

Plant World, II, Nos. 10 and 11, July and August, 1899.

Recreation, XI, No. 2, August, 1899.

Sports Afield, XXIII, Nos. 1, 2 and 3, July, August and September, 1899.

Wilson Bulletin, No. 27, July, 1899.

The expedition sent to the Galapagos Islands by Hon. Timothy Hopkins in the interests of the Stanford University has returned after a ten months' collecting trip, bringing much valuable material in all branches of science, including several new species of birds from formerly unvisited islands. Edmund Heller M. C. O. C. and R. E. Snodgrass, both of Stanford University, were in charge of the expedition.

Published in the Interests of Californian Ornithology.

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The American Ornithologists' Union

CHECK-LIST OF NORTH AMERICAN BIRDS,

Second Edition, 1895, Thoroughly Revised.

The preface to this work defines its scope and object and includes selections from the A. O. U. Code of Nomenclature, of special importance in the present connection. The table of contents consists of a systematic list of orders, sub-orders and families of North American birds. The check-list proper gives the scientific and common name, number in previous list, and geographical distribution of the 1,068 species and sub-species, constituting the North American Avifauna. This is followed by a list of birds of doubtful status, and a list of the fossil birds of North America.

This new edition has been carefully revised; the recent changes in nomenclature and species and sub-species described since the publication of the first edition in 1886 are included, while the portion relating to geographical distribution has been much amplified.

CLOTH, 8vo. 372 Pages, Price, $2.00.

THE AUK

A Quarterly Journal of Ornithology.

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A Night at Sea.

BY A. W. ANTHONY, TAYLORSVILLE, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 2 1899.]

WHAT do the sea birds do at night? I have often heard the question asked and as often heard someone answer: "Oh. they all go to the islands to roost." Do they? Few naturalists care to spend the hours wandering about on land in hopes of discovering unpublished chapters in the life histories of our land birds, and on the water they are not only less inclined but opportunities are few and far between.

I have often passed the night with the birds off the California coast and enjoyed their company so much that I venture to give an account of one night's observations in hope that it may prove of some interest to readers of the BULLETIN. It was late in April when a visit to the Coronado Islands was planned. and as it was desirable to spend several days about the islands, I did not care to take a large boat that would have to be anchored off the rocks. Therefore a fifteen-foot skiff was loaded with camp equipage and provisions and at dark I started—alone, —because, as some one said, no one was fool enough to go with me and at night. Since it is nearly always calm then off our Southern California Coast and with nearly the full moon, it was altogether the most enjoyable time for the twenty-two mile pull to the islands.

On each of the beacons which mark the channel up San Diego Bay were resting cormorants or herons. Two or three Great Blue Herons and one Egret were seen, some crowding so close to the red light as to seem to be seeking warmth from its rays. At Ballast Point I hauled the boat upon the beach to wait the turning of the tide. Out in the channel scores of Brown Pelicans were busily engaged fishing in a close flock. So fast did they plunge it seemed to rain pelicans. They were accompanied by the omnipresent Heermann's Gulls whose whining, cat-like cries were the only notes to be heard. Between midnight and one o'clock, the tide having turned, I launched the skiff and started sea-ward. A few Western Gulls were the first birds seen. They were passing from the bay toward the kelp beds two miles to the westward.

These vast reaches of thick kelp afford excellent resting places for the gulls, terns and cormorants, and even Great Blue Herons are often seen standing on the floating mass. One arose now as I approached and flew farther out with hoarse complaint. Skirting the edge of the kelp for some two or three miles, gulls were constantly startled from their roosting places, Western and Heermann's being easily recognized. At intervals small flocks of Royal Terns rose from the rafts of broad leaves and others were at times seen flying in from the south. Quite a number of cormorants were fishing near the southern end of the kelp, diving for the many small fish that could easily be traced through the water by their silvery, phosphorescent trails. On one or two occasions the birds chased their prey under the skiff and the larger track of phosphorescence resembled a singularly erratic comet, as it zigzagged about, three or four fathoms under water.

It was here that one of the cormorants in pursuit of a flying fish chased it out of the water so near the boat that the fish passed within a few inches of my face, and the bird, rising to the surface an instant later, was so startled by the sudden discovery of the boat, it uttered a squawk of horror which was drowned in a gurgle as its author hastily disappeared below. A cormorant never tries to fly when it is in a hurry and can as easily dive. After leaving the kelp and getting fairly out to sea, gulls were rather common, flying in small flocks of three or four to a dozen. Nearly all were migrating and many were accompanied by Royal Terns. A whistle would always call the terns aside from their line of flight but after one or two circuits and a few inquiring cries, they left the boat to pass on to the north.

Frequently flocks of six or eight pelicans would pass like grey ghosts in the moonlight, flying in "pelican order," each just behind and a little to one side of the one preceding it. They but cleared the water, rising and falling in perfect time to skim the long, smooth swell. They were all coming from the direction of the bay and flying toward the islands in a grave, business-like manner that ever marks the species as one that takes life seriously. When deep water was reached several miles from shore, the call notes of Cassin's Auklets and Xantus' Murrelets began to be heard and soon they came from all sides, although none allowed me to get near enough to see them. At this season the murrelets have nearly all hatched their young and taken them to sea, where family parties of two adults and one or two downy young are often seen, many miles from land.

The auklets, however, though they have also hatched, are obliged to spend the night in getting food for the young which never leave the burrows until they are fully feathered. They are never fed in the daytime but at night an auklet colony presents a very busy appearance as the adults hurry in from the sea, where they have spent the day.

All night they are going and coming and some of them must go many miles from home and make perhaps several trips each night to satisfy the cravings of the ever-hungry squabs. Soon after reaching the auklets, shearwaters were seen flashing by in the moonlight and the frequent, discordant cries that reached me proclaimed them to be, in part at least, the Black-vented species. Now and then the far-off notes of a petrel came over the waves and once the dark, bat-like form of what was probably the Black Petrel hovered for a moment in the wake of the skiff and was gone.

It was now getting grey in the east and the islands were no longer blue lumps on the sea but unmistakable rough, rocky mountains but a short distance to the south. But a few minutes since a flock of pelicans passed, going toward the nesting colony on North Island and now a long line of them are seen coming back,—the first contingent of hundreds that soon start for the day's fishing. They are followed by a long, black line that, as it comes nearer, resolves itself into a seemingly endless column of Farallone Cormorants. As day breaks, pelicans, gulls and cormorants become more and more abundant, streaming out from the island in every direction, until we can easily understand how one, seeing them arrive or depart, comes to the conclusion that "all the sea birds go the islands to roost."

Some of the Summer Flycatchers of Arizona.

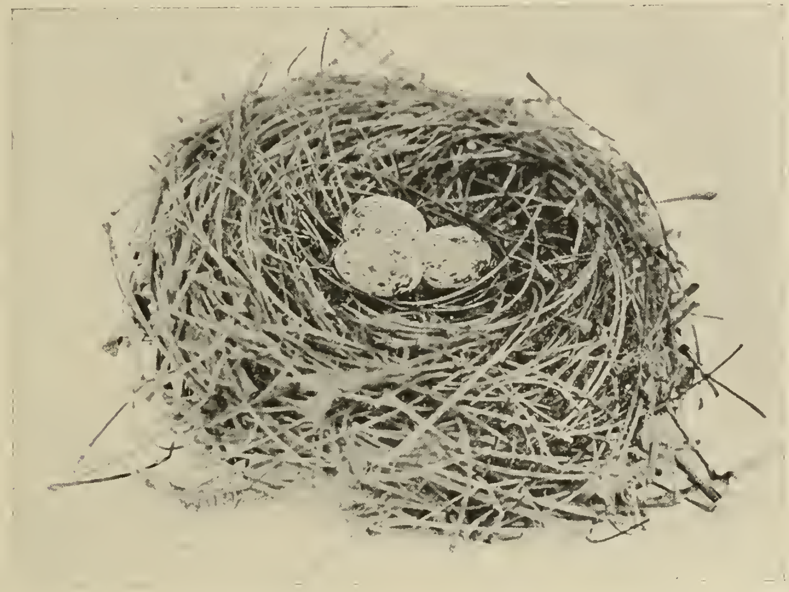
BY O. W. HOWARD, FT. HUACHUCA, ARIZONA.

[Read before the Southern Division of the Cooper Orn. Club, Aug. 30, 1899.]

Sulphur-bellied Flycatcher.

THIS large and handsome flycatcher is one of the rarest and least conspicuous of its family and its range in the United States is extremely small, it being found only in the higher mountain ranges of Southern Arizona and Southern New Mexico. I believe there are more of these birds in the Huachuca Mts. than in any other range north of the Mexican line, although even there very few are found. During four successive seasons' collecting in this locality I have not seen more than a dozen pairs of the birds, and during that time have examined five nests, all of which contained young,—the result of collecting birds' eggs on Sunday! The birds are so shy and so different from other flycatchers that it takes a long time to become acquainted with their habits.

In the breeding season the birds keep in the thick foliage of the trees and catch their insect prey in a very quiet way, the twitching, uneasy habits of other flycatchers being entirely absent. A person might be in the immediate vicinity for hours without seeing them and for this reason the nests are hard to locate, although a person could find them if he had plenty of spare time in which to watch the birds. After the eggs are hatched the birds become quite bold and noisy and may be easily located by their peculiar note which sounds like the squeaking of a limb or a wheelbarrow which needs oiling.



Nest and eggs of the Sulphur-bellied Flycatcher.

I noticed the first birds on the 4th of June and I do not think they arrive before the 1st. In my observations of these birds I have found that they use the same nesting cavity year after year and as soon as they appear in the spring they may be seen in the vicinity of their old nests. The nesting season of this species is very late; I do not know of any eggs being taken before the first of July and I found a nest with young just hatched on August 28, 1899. I think fresh eggs may be found from the first of July until the 15th of August. All the nests I know of were placed in sycamore trees along a creek in the bed of a canon, at from 5,000 to 7,000 feet elevation. As a rule the cavities are large enough to admit the hand without enlarging, and vary from six inches to one foot in depth, and the distance from the ground ranges from twenty-five to fifty feet.

The nest in the illustration was taken by Mr. W. B. Judson on our trip in 1896, on July 16. It was placed in a sycamore tree about forty feet up in a natural cavity ten inches deep. This nest was within a stone's throw of our camp and was not found until two of the three eggs had been laid. We had seen the birds in the vicinity several times, but our suspicions had not in any way been aroused by their actions and we paid little attention to them until Mr. Judson happened to see the female fly from the cavity and thus we found the nest. All the nests I have examined were made entirely of stems of wild black walnut leaves without any attempt at lining whatever, excepting that the finer stems were placed on the inside of the nest.

A set of three slightly incubated eggs found Aug. 5, 1897, by Mr. F. C. Willard of Galesburg, Ill., was placed in a sycamore, fifty feet up, in a natural cavity in the trunk of the tree and about ten inches deep. This nest was directly over a creek. A nest which I found this season (on July 20, 1899) contained two young of this species just hatched. The nest was placed in a natural cavity in a sycamore about forty feet up and was the same cavity from which I secured a fine *set* of young in 1897. The nests are very large, with a shallow cup, measuring about three inches, inside diameter. The outside diameter varies according to the size of the cavity in which the nest is placed. Notwithstanding the crude material used in the composition of the nests they are rather compact and easily preserved. I have no calipers with me so cannot give the dimensions of the eggs, but they are about the size of a Kingbird's or slightly larger, rather oval in shape and marked over the entire shell with scratches and blotches of chestnut and reddish-erown with under shell markings of purple, the ground color being a shiny buff.

OLIVACEOUS FLYCATCHER.

The Olivaceous Flycatcher is a common summer resident in various mountain ranges of Arizona and New Mexico. It is found very commonly in the oak belt in the Huachuca and Santa Rita mountains at from 5,000 to 7,000 feet elevation. Although the birds are so numerous, the nests are very hard to find. During four seasons' collecting in these mountains I kept a sharp lookout for the nests of this bird but until this season I did not secure a single egg. In the season of '96 we spent many hours watching the birds in hope of finding a set or two of their eggs, but were only rewarded with a nest of four young birds about ten days old. This nest was in an ash tree within three feet of a trail on which we were passing almost daily. It was placed in a natural cavity about twenty feet up and ten inches below the entrance. We had seen the birds in the vicinity of this nest and watched them several times but not once did the birds cause the least suspicion as to the location of their nest until Mr. Judson espied the female with food for the young and saw her go to the nest.

In 1897 I noticed a pair of these birds in a certain locality several times and made up my mind they were about to build in the vicinity, so I placed some cotton along a barbed wire fence and watched results. The birds did not bite that day, but a day or two after I came back to the same place and noticed that some of the cotton had disappeared, so I sat down to watch and it was not long before one of the flycatchers lit on the fence and took a good sized piece of cotton and flew off to where its mate was perched, dropping the cotton on the way. I watched the birds for fully an hour after this but there was no further attempt made at gathering building material.

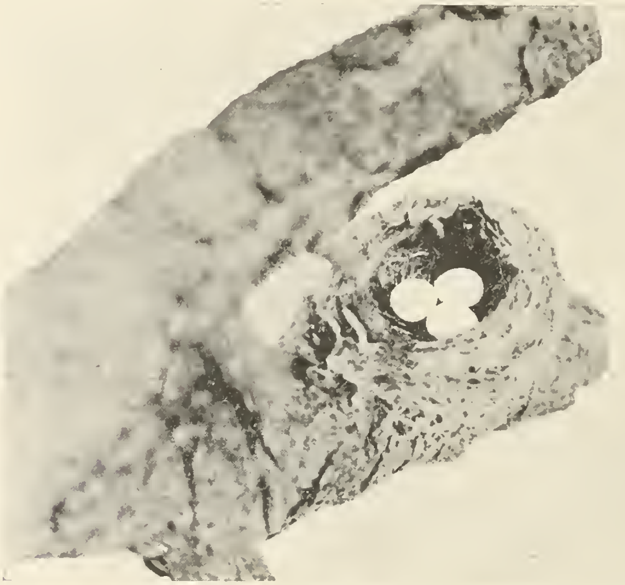
By mere accident a friend secured a single egg of this species for me last season. My friend had climbed an ash tree to examine a nest of the Arizona Woodpecker which contained young, and while up the tree he noticed a likely-looking cavity in another limb of the same tree, so he chopped it open and found it contained a nest of the Olivaceous Flycatcher with a single egg and shells of others—evidently a deserted nest. The nest did not differ materially from two others which I am about to describe. While walking down a canon one day late in May, through some thick timber, an Olivaceous Flycatcher, presumably a female bird, flew past me and I noticed something in its mouth as it flew by. The mate followed shortly after and both birds lit on a dead oak stump not fifty feet away. I was well hidden and stood perfectly still. The birds seemed to be rather nervous and sat there for some time when the one with the building material entered a deserted woodpecker's excavation about six inches below where it had been sitting. Satisfied that the birds were only building I left the locality and returned again on the 4th of June expecting a fine set of four or five eggs, but to my disappointment the birds were not in sight and when I looked into the nest I found it deserted. The two eggs which it contained were almost entirely hidden by the disarranged nesting material. Needless to say I took the two eggs with the nest and was glad to get them. The nest was composed almost entirely of rabbit's fur with a few tail and wing feathers of jays sticking upright around the outer edge. The nest was ten inches below the entrance to the cavity and fifteen feet from the ground; elevation about 6,500 feet. The eggs very much resemble those of the Ash-throated Flycatcher but are much smaller and the markings are finer. Mr. F. C. Willard of Galesburg, Ill., examined a nest of this species on the same date, it being placed in a natural cavity in the trunk of a sycamore tree forty feet up. This nest contained four fresh eggs but unfortunately two of the eggs were broken while chopping into the cavity. The nests did not differ from the last and the eggs from the two nests are scarcely distinguishable. Counting the egg of this species taken by my friend in '98, there are only five eggs now in existence of the Olivaceous Flycatcher.

BUFF-BREASTED FLYCATCHER.

Very few facts, if any, have been published regarding the breeding habits of this rare little flycatcher. The birds are even less numerous than the Sulphur-bellied Flycatchers, their range within the United States being about the same. I first met with the birds in 1896 during that eventful trip made from Los Angeles by wagon, a distance of about 700 miles, the party consisting of W. B. Judson, H. G. Rising, H. S. Swarth and myself. We expected to meet this flycatcher shortly after our arrival in the Huachucas and kept a sharp lookout for them all the time, but were for sometime disappointed, until finally one afternoon I was taking a stroll up the canon above the camp when I spied a small flycatcher sitting on a dead twig in the top of an oak tree on the hillside. The bird was new to me and I at once took it for granted that this was the Buff-breasted Flycatcher. I stood behind a tree watching the bird until the light grew dim and I was obliged to make my way back to camp as I had to pass through a narrow and very rocky gorge known as "The Box,"—not a very safe place to wander around in after dark.

When I reached camp that evening I reported what I had seen and all were much interested so on the following morning June 5, 1896, all four of us made our way to the place where I had seen the flycatcher, but the bird was not in sight and we were about to make our departure when I spied a nest in a pine tree just above our heads. I at first thought this was the flycatcher's nest so I soon had my climbers on and was up to the first limb where I stopped to rest and while doing so my eyes fell on another nest in the same tree and not far from the one I had seen from the ground. The last nest looked more promising and as I sat there looking at it I noticed a very small tail sticking just over the edge of the nest. It did not take me long to climb up even with the nest and a few kicks on the limb flushed the bird which proved to be a Buff-breasted Flycatcher. The nest was in a fork near the extremity of the limb and about twelve feet from the trunk of the tree and fifty feet from the ground.

The only way the nest could be taken was by the use of a rope, of which we had plenty. One end of the rope was passed over a large limb about twenty-five feet diagonally above the nest, then pulled around until both ends met on the ground, whereupon the boys below took up the slack and walked out until the rope passed within a foot or two of the nest. When everything was ready I twisted the rope around one leg and slid down even with the nest. After flushing the bird once more I peered over the edge of the nest to see the first four eggs of the Buff-breasted Flycatcher that had ever been found. After placing the eggs in my mouth I cut off the limb with my hatchet and slid down to the ground, leaving the other boys to pull the rope down and coil it up while I packed the treasures. The eggs were plain buff or dull white in color and of oval shape. The nest was very compact and about the size and shape of a Blue-gray Gnatcatcher's nest; the composition was of bits of dry soft leaves, fine straws and rootlets with a lining of fine fibers. The bird was very bold and not easily flushed from the nest.



Nest and Eggs of the Buff-breasted Flycatcher.

The usual note of this flycatcher is scarcely describable but is entirely different from that of any other flycatcher that I have met. When flushed from the nest the bird will keep up a short low "chip". Another nest of this species found June 13, 1896 was placed in a pine tree, saddled on a large limb about four feet from the trunk of the tree and forty feet above the ground. This nest contained three eggs about two-thirds incubated and the nest and eggs did not differ from the preceding set. I found another nest on July 16, 1896 also situated in a pine tree and not far from the one last mentioned. The nest was placed in a fork near the extremity of a large limb, about ten feet out and thirty-five feet from the ground. This nest was also taken by use of a rope as described and contained three fresh eggs, but an examination of the female showed that the full clutch had been laid.

I did not secure any more eggs of this

species until July 10 of the present year, when I took a fine set of four eggs, the nest being placed in a pine sapling and saddled on to a large limb about six feet out from the trunk of the tree and thirty feet from the ground. Elevation, 9,000 feet. This nest and eggs do not differ from those I found in 1896 excepting that the nesting material is a little different, owing to the difference in altitude. Mr. F. C. Willard found a nest of this species in 1897 saddled on a large limb in a pine tree thirty feet from the ground. This nest rested against the trunk of the tree and in climbing, Mr. Willard put his hand over the nest,—not knowing it was there—and unfortunately crushed the eggs.

* * * * *

A Northern Record for the Black-chinned Sparrow.

(*Spizella atrigularis.*)

BY D. A. COHEN, ALAMEDA, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 2, 1899.]

On May 27, 1899 while working my way through the low, rather sparse, black sage covering a knoll in the Coast Range Mountains in Alameda county, near the line of Contra Costa county, I observed a small bird alight in one of the bushes, but before I could raise the gun it had hidden itself amongst the cover. During that brief space I caught a glimpse of the black chin and wondering what the strange bird could be, decided it was possibly Bell's Sparrow (*Amphispiza belli*). Efforts to flush it or catch sight of it again were unavailing. About two miles farther along the rocky hills, descending from a rocky ledge and barren soil with a sparse growth of sage and scrub oak to where the more fertile soil supported a healthier and more abundant growth of vegetation, I had just shot a Lazuli Bunting on a gentle incline down to the canon. Here and there was a small rock and on one of them I sat for a brief rest when a bird song, very much like that of the Lazuli Bunting in tone and duration, met my ear.

The singer had no time to repeat as he hopped about the top of a tall shrub, because a charge of dust shot ended the life of the individual which I could not clearly recognize in the strong light. Upon picking up a cleanly-killed specimen I knew it to be akin to the bird I had just previously seen, and judging it to be a male because of its song, I searched for the female or for the nest. Here was an ideal place for the nest, both sun and shade in varied quantities,—a minature ravine, shaded by a few willow, small bay trees and burr oaks, that had been a rill in the rainy season, losing its way a hundred yards farther down the slope to a grassy hillside above the thick brush along the creek, while on each side of the ravine was mixed vegetation characteristic of the richer soils, also an occasional sage bush and rock straggling from the rugged territory higher up. One or two patches of wild blackberry vines, beds of bracken, clumps of lupine and thistles and mixed brush where a tall, coarse perennial grass flourished, were diligently searched without sign or note of a bird of any sort.

Mr. W. Otto Emerson identified the specimen as the Black-chinned Sparrow (*Spizella atrigularis*). It measured in inches 5.90, 7.88; 2.60; 2.80. Bill, pinkish-brown; irides, brown. It was a male in rather worn plumage and possibly breeding close to the spot where it was taken as this was the best site as to varied topography for its size of any for miles. The bird's song and bold actions indicated its mate was nesting in the vicinity if similar actions of other small birds are taken into account.

Mr. Belding's "Land Birds of the Pacific District" quotes on this sparrow as follows, in part:—"Santa Ana Plains, Los Angeles Co., Dec. 10-14, 1884, rather common—F. E. Blaisdell. San Bernardino, F. Stephens, tolerably common; breeds in the foothills. Colton, April 28, 1884, a fine male shot by R. B. Herron. April 29, male shot by Chas. W.

Gunn. [Mr. Stephens was the first to find it in the coast region of California, in 1883 or earlier]".

I sent the specimen to Mr. Stephens at Witch Creek, San Diego Co., for further reference and he generously contributed the following notes, and remarks that the specimen appears to be in the normal male plumage. Mr. Stephens says: "All my notes and references are at San Diego so I cannot give you as definite information as I would like to. In a general way this species is more or less distributed over the brush-covered hillsides (chemisal) of Southern California, between 1,000 and 3,000 feet altitude. They appear in the latter part of March. By the end of June the song ceases, or nearly so. As they are retiring in habit, the song is the principal clue to their presence. I cannot say just how late the species remains but I doubt many birds being here after the first of August, perhaps none.

"The farthest north I have seen this species is near Independence, Inyo Co. (see Fisher's Report on the Ornithology of the Death Valley Expedition). The nest and eggs are of the usual *Spizella* character; the nest is placed in low bushes in the thick chemisal and May is the principal nesting month. I have seen small companies of fewer than a dozen birds in the migration, but usually not more than one or two pairs inhabit any one hillside. I do not consider the species common anywhere and there are large areas in southern California where it does not occur."

* * *

Echoes From An Outing.

A MEMORY OF THE SIERRAS.*

ON a bright morning in early June a trio of the Cooper Club consisting of Mr. Barlow, Mr. Carriger and the deponent set out from Placerville, the old "Hangtown" of blessed memory, and took our way up over the old stage road toward the divide. A pair of handsome "bays" relieved us of physical exertion and the blistering heat of the lower valleys was tempered by the mountain altitudes. Every breeze was redolent with the odors of conifers, while the broad sweeps of the mountain suburbs were a continual revelation of fresh and inspiring scenery.

Our attention is early and often called to the substantial pavement with which Nature has invested the highway and hills, and to the superfluous materials left scattered about. But even these ungentle reminders are not devoid of sentiment, for was it not over these rocks that Horace Greeley made his flying record behind the relentless whip of Hank Monk? The incident is dim in the shadow of more important events connected with the old highway, but in the light of experience the solemn conviction remains that here the seeds of lingering dissolution were planted in the tangled viscera of the great journalist.

Tradition tells us that over this trail came many of the Argonauts of '49 and bands of gold-hunters who followed in succeeding years. When the hidden treasures of the old Comstock were unfolded to the world, the old trail was converted into a chartered thoroughfare and carried the products and supplies of that historic mining camp. No suburban avenue on the continent could then rival it in value and magnitude of its traffic and old residents, with watery eyes and far-away look, still delight to tell of those halcyon years when the road was crowded with a moving procession of dusty mules and ponderous trains, of flying stages and hurrying equipages and all the turmoil of congested business to be found where gold is prevalent. But the sentiment is all of the past! When the heart of the great industry ceased to beat, associated enterprises died for want of nourishment. A few lumber-laden teams from an adjacent mill plod up and down in monotonous routine.

The wandering camper urges his weary mules toward the clear waters and cool shades of Tahoe. Specters of decay linger in the neglected garden and unpruned orchard, and the old roadside houses stare out upon the deserted reaches like crumbling monuments in a cemetery of industries long since dead. As we ascend to higher altitudes the landscape stretches away until the pine-clad hills are melted in the mellow distance. Far down in the blue-tinted valley clustered hamlets mark the sites of busy mines, and gleams of white through spires of conifers reveal the sequestered homes of ranchmen. For more than half a century the gold-hunter has been writing history in these hills, and from the rude inscriptions 'graved with pick and shovel and drill may be read untold stories of Roaring Camp and tales of romance and pathos, of hope and despair.

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* [It is proper to here mention that the locality whence Mr. Welch gleaned the observations that have entered into his delightful "reverie," is Fyffe, El Dorado Co., Cal., a point on the Lake Tahoe Road, which has of late years become a favorite sojourning point for numerous members of the Cooper Club. It is most interesting to note the impressions which are inspired in one who does not give his time wholly to the fascinations of ornithology while in the field, as do most of the workers who have visited Fyffe in the summer. Mr. Welch's keen and ready wit and generous good nature were pleasing features of the outing, as one may judge who follows through the sketch. ED.]

With eager eyes my enthusiastic friends search the wayside for an alien visitant. Not an adjacent nest has escaped their telescopic vision, not a flash of wings but has been promptly listed and bound in thongs of unspellable Latin. By gentle protest they are dissuaded from climbing to the top of a tall Lombard poplar to investigate the domestic affairs of a flycatcher, but there is no commercial taint to their enthusiasm,— they are not here to despoil in the name of Science! The outposts of the Sierran timber belt loom up in the distance and it is with admiration akin to reverence that we approach the grandest woodland in all the world. As we enter into the solemn shade and listen to the eternal whisper of its foliage, one is deeply reminded of that heritage of the supernatural which, in the ancient dawn of intelligence, peopled the solitudes with gods and phantoms.

Soon we arrive at our destination, a little nook, carved out of the forest, that might have been torn from an eastern

Photo by Loren E. Taylor, Fyffe, Cal.

OUR OLD SIERRA CABIN IN WINTER.

(This patriarchal cabin among the pines has served often as a lodge for ornithologists sojourning at Fyffe, on the Lake Tahoe Road, during the summer.)

landscape. A plain, old road-house with adjacent out-buildings have survived in some degree the industrial paralysis. A garden with rows of cultivated vegetables and an orchard extending back to the woodland, lend an air of home-like comfort to the surroundings. We miss the rustle of Indian corn and the yellow plumes of golden-rod, but an old worm fence surrounding the enclosure completes a rustic scene that would appeal to the memory of them who know aught of of eastern rural life.

Rustic simplicity prevails within. An old dusty bar, a relic of other days, before which many a weary soul has received spirituous consolation, has been promoted to the dignity of post-office. A broad, open fire-place hints of the evening blaze and the seductive pipe.

> "This is the place we long have sought
> And mourned because we found it not."

Here freedom is unconfined. We may occupy three chairs at a time, bunk on the post-office, skin birds on the table and smoke the room blue without provoking a questioning glance. The flag of the Cooper Club is unfurled over Sportsman's Hall, conventionality kicked out of the back door and freedom invited to shriek.

It is surprising how the appetite gains upon the clock but it is not yet the hour for luncheon and my colleagues have already assumed their nondescript costumes and vanished in the wilderness. Conservation of energy is my distinguishing trait and for what little popularity I have attained among my fellow-men, I am indebted to this virtue. Therefore I light my pipe and saunter out to see what Nature may add to the rustic picture. An "old oaken bucket" that hangs in a well of clear, cold water tempts me to the verge of harmless intoxication and then I pause by a dripping trough where a band of small frogs are rehearsing for the evening entertainment. Barn Swallows circle and twitter about the old barn, wherein a noisy hen is proclaiming the accomplishment of a maternal duty.

A band of Lark Sparrows are exploring a barren pasture over the way, while far up in the adjacent cedars a band of those mountain Gypsies,—Blue-fronted Jays,—are juggling bird language in a most distracting manner. A meadowlark perches himself on the old rail fence and utters his clear, ringing call like a bugler on parade, while a robin in a neighboring apple tree betrays the proximity of its nest by distressing cries. A pair of bluebirds have reared their brood in the cavity of a tall stub and now spend their time gossiping about the pasture with a band of purple finches. A patch of dead blackberry vines are investigated without result, but in a growth of young conifers by the orchard fence I can hear the whining plaint of the Spurred Towhee. Upon nearer approach I hear the cry of *tsit*, *tsit*, *tsit*, so common to many birds of divergent natures that it seems as if somewhere back in the history of bird evolution they had a common parentage and this the primal, perhaps only, note of their vocabulary. The alert, black head of a Junco discloses the author of the cries and upon parting the foliage, a feeble flutter of baby wings reveals the cause of parental anxiety. A Red-shafted Flicker with his merry "cheer-up" stops to explore a dead pine. With the exception of the Red-breasted Sapsucker he seems the only representative of his kind, for though this is a haunt of the Pileated and Cabanis' Woodpeckers as well as of their smaller White-headed cousin, they are not often in evidence. A number of goldfinches are flitting about the orchard but the hour for luncheon is at hand and one cannot spoon with Nature while suffering from the pangs of an unrequitted appetite.

Nature has not here shown her boldest handiwork in mountain sculpture or in arboreal creations, for the pass is not the highest, and the majestic shafts about us are but wands as compared to the giant sequoias of Calaveras and Mariposa. Yet she has done enough to impress one most profoundly with the vastness of her conceptions. Well it is that the government has sought to rescue this great aviary from the hands of the despoiler for the desecration of the axe and saw-mill is in evidence on every side. The results of our daily excursions among the warblers and other birds of the deeper forests have been recorded by those veterans in bird-craft, Messrs. Barlow and Carriger, and although every day was replete with pleasant incidents, further reference to the subject would here be superfluous.

Yet, after the last day's work is done, I linger to bid good-bye to the pleasant associations and go out again into the lengthening shadows to witness the coming of the night. Seated upon a fallen cedar with a mattress of brown needles at my feet, I examine the treasures around me. To the north a broad sweep of the low-lying valley, untrammelled by civilization, rests languorous and dreamy in the purple haze, while beyond rise the gray, granite walls and battlements that mark the course of that erstwhile Klondike,—the American River. To the east the bald granite ridges sweep ever upward until the gleaming fangs of the great divide stand clear and cold against the evening sky.

On every side the silver stars of "mountain misery" look up from their beds of feathery foliage, and groups of tiny figworts, some robed in vestments of white and gold and others in imperial purple, are scattered over the soft carpet. Near them a snowy iris stands like a chaste nun guarding her worldly flock. A dead cedar thrusts its tapering spire far up into the blue ether and on its pinnacle an Olive-sided Flycatcher assumes his solitary watch, uttering now and anon his peculiar note. In adjacent thickets the warblers and vireos are completing their evening repast and their gentle gossip falls on the evening stillness like baby prattle of bird-land. The low, happy notes of the Chickadee are heard from every side, while from the slanting branch of a spruce a grosbeak lifts up its voice in anthem so earnest and joyous that its influence is infectious.

The dawn of night is around us; swift-footed and silently she treads the lower valleys and her cool, balmy breath permeates the forest. The clamorous birds are hushed in her mysterious presence. She pauses a little in her upward flight, while the lingering sun throws a parting kiss to the eastern hills which blush, responsive, to the greeting. The silence that invokes the children of imagination is over the landscape and the "peace which passeth all understanding" seems to enfold the hills. "The groves were God's first temples" is a sentiment written on every hill and whispered in every wandering breeze. What simplicity is here, where the whole world may come unquestioned and leave its burdens in God's own sanctuary. What glorious absence of narrow creeds, of pompous caste and petty cliques and all the empty formalities of fashionable devotions! No gloved and perfumed usher with scrutinizing glance suggestive of credentials. No salaried choir to taint the holy anthems with stains of commerce, and no ten-thousand-dollar exponent of humility to throw bouquets of empty rhetoric. No ostentatious appeals to God to manifest His divine presence are necessary.

He is here if anywhere and you know it. These are His temples and His silent sermons are written on every side. More masterful than the creations of men are these majestic columns and eternal naves. More beautiful than the frescoes of St. Peter are these cloud-swept vaults and glorious vistas. The grandest symphonies of the masters are not more acceptable to the human heart than the sweet anthems of the birds borne upon the deep, solemn strains of these mighty wind-harps. No one who exercises thought can pass a twilight in the impressive solemnity of these groves without imbibing in some degree the sentiment which impelled that broad-minded teacher of humanity and humility, of mercy and charity, to go alone into the solitudes to pray.

The day is nearly spent and night moves silently, while the evening star rises white over the spectral hills. The weird call of a creeper is still heard, like the mocking taunt of some woodland sprite, and as I move to go, a faint twitter comes from out the snowy plumes of the deer-brush, so soft, so ineffably sweet, that it seems a benediction to Nature's silent services. The day is dead.

> "Night threw her sable mantle o'er the world,
> And pinned it with a star."

J. M. W., Copperopolis, Cal.

Nesting of the Sulphur-bellied Flycatcher.

BY RICHARD D. LUSK, ROSEMONT, A. T.

ALONG the ever-flowing canon streams in some of the higher ranges of southern Arizona, at an altitude where grow large sycamores in abundance (5000 to 6500 feet) may be found a curious member of the family *Tyrannidæ*, the Sulphur-bellied Flycatcher. But he is not to be found in these, his breeding haunts, until spring has ripened into summer. The warblers and vireos and the other flycatchers, the beautiful tanagers and the wary Scott's Oriole with his melodious whistle, reminding one of the first strain of "Yankee Doodle," have all been back for weeks in their favorite resorts of hillside or mountain top or canon depth, ere the first pair of these birds puts in an appearance or makes their presence known by an unmusical discordant screech.

They seem to come in pairs, during the last days of May or early in June. Having killed several females in June whose ovaries showed no indication of the presence of the breeding season, I surmised that possibly they did not breed here, and, after watching them assiduously two or three seasons thro' June and even into July, I had nearly given up the quest when a companion shot one about Aug. 1 containing a fully formed egg.

With new light on the subject, I watched thereafter later in the season and on Aug. 15, '94, was rewarded by finding a set of three eggs, the first taken in the United States I believe, and which I afterward sent to the late Major Bendire. The nest referred to, as well as all subsequent ones that I have found, was in a natural cavity of a sycamore, caused by the rotting out, within the trunk, of the base of a broken off limb, of which cavities there are many in the sycamores. There is little or no cavity below the level of the opening, and those selected are quite roomy, so that the bird which is somewhat larger than the kingbird, has plenty of room without mussing her plumage, and so large is the entrance that usually the largest hand would find ample room for entrance.

The nests which are marvels of uniformity and simplicity as to materials, are made of the naturally-curved, dried leaf stems of the walnut, without a shred of lining of any kind. The stems, which are stiff and quite uniformly curved, are so arranged that their natural curves form the round nest. Sometimes, however, in case of a rough-bottomed cavity, a sub-material of small sticks, bark etc., is made use of. They are generally quite indifferently made, like most nests within cavities, but last season I found one so compactly put together that I was able to remove and handle it without injury. Though quite thick, one could distinctly see the large dark eggs through the bottom of the wire-like structure after its removal from the cavity. No other number than three of either eggs or young was ever found, I believe; no other material in the nest structure than the leaf stems mentioned; and no other location than that of a natural cavity in a sycamore by running water.

This is one of the few species nesting here, who wait their nesting for the second spring, the rainy season, which opens about July 1st. The Buff-breasted Flycatcher and the Massena Partridge are the most conspicuous other examples. It seems curious that, arriving at their breeding haunts at a time when nearly all of their neighbors are building or setting or rearing broods, and after the weather is as uniformly mild and propitious as that of Italy itself, they invariably wait several weeks before beginning to build, tho' I have learned that they commonly select a cavity within a few days after their arrival, and if not disturbed make it their rendezvous until later in the season when they see fit to build in it. I have never known a nest to be begun until the clouds were gathering for the summer rains, and only one before the rains had actually well begun, the latest nest being taken Aug. 15, but these eggs were well incubated. Two pairs I have seen drowned out of their cavities by the driving rains filling them to over-flowing; in fact my first eggs were almost submerged in water just after a hard storm, and last season I took an incomplete set of two from beneath nearly two inches of water in a water-tight cavity filled to the brim. These birds had gone some fifty yards up the stream and built anew.

They are a very shy, suspicious bird and I could rarely get an opportunity to watch them at their nesting, except by going while they were away from home and quietly awaiting their return in an inconspicuous place. Presently the subdued, discordant screeching of the two birds at once would announce that they were about the cavity, and this particular tone I never heard any where else, so it became a clue to me. I was unable to ascertain whether the male assisted in the work of nest building but think that he did. 'Tis a very common habit with them to alight on a high commanding position and take an extended survey before going to the nest. If they see you and leave, don't think to hide and await their return for the eggs may cool for hours, but Mrs. Sulphur-belly will not return until you are gone and not until she sees or hears you go. They are usually very quiet except during the morning hours.

Their normal call is about the most unmusical imaginable. I am at a loss to describe it, and certainly can give no idea of it by the use of sounds represented by the English alphabet, or by notes of the musical scale, and, for the sake of my native tongue and of the divine art of music, I'm not sorry that I can not. It resembles slightly the screek of a large wheel devoid of lubricant, uttered once, or, often when two or more are in company, several times in succession. Heard once, it will never be forgotten or confused with any other bird voice. As for a song, I learned that they do have one. Just after sunset, one evening last August one of them perched upon the top of a small oak on a steep hillside, and, for several minutes, at intervals, executed what he certainly meant for a song. It slightly resembles that with which the Kingbird awakens one at the first streak of dawn, when sleeping out of doors, as we so often do here in our hunting and traveling.

If, as I suspect is true among birds, a harsh, unmusical voice betokens a harsh, disagreeable nature, these birds must have very unlovely natures indeed; and I have often fancied that, either from fear or repugnance, other birds give them a wide berth. They seem fearless, but rarely, if ever,engage in chasing the raven or hawk as do the other flycatchers. Have rarely seen them chase birds from their nesting tree even tho' I have repeatedly seen a Cooper's Hawk alight on its top and remain for some time. The eggs of different birds of this species vary considerably as to size and also as to relative dimensions. Their creamy white ground is spotted and somewhat blotched with two shades of brown and lavender, very heavy on large end, the ground color there peeping thro' only here and there on some of the more heavily marked specimens, and assuming a streakiness on the more thinly marked portions of shell, but always marked plentifully over the whole area. An incomplete set of two in my possession here measure 1.00x.78, .99x.77 inches and a single, an addled egg, taken from a nest containing two young birds, measures .95x.72. This last is the minimum, so far as I have seen, the first two fairly representing the average.

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Mr. John M. Willard who is located at Susanville, Cal., writes us under date of July 15 from Eagle Lake, Lassen Co. that two plume hunters have killed nearly 400 grebes on the lake thus far for the season. He states that they cannot be reasoned with in the matter and profess to be unable to discern a difference between the taking of a few skins for scientific purposes and slaughtering the birds. This but records one more offense against decency, such as is carried on by vandals in almost every isolated district in which birds of valuable plumage congregate, and there seems no way of remedying the evil. Let us hear from some practical ornithologist on the subject.

The editor recently enjoyed a call at the home of Mr. Lyman Belding of Stockton, Cal., one of the three honorary members of the Cooper Club. Mr. Belding seems as well preserved and as active as he was years ago when he wrote his well known volume, *Land Birds of the Pacific District*, and still enjoys frequent outings in the Sierra Nevadas, where he engages in fishing and hunting and bird study as a pastime.

Correspondence.

A Plea for the General Use of Scientific Names.

From time to time various persons, presumably intelligent collectors, have asked why we cannot dispense with scientific names of birds and use the English altogether. Such a peculiar proceeding has even found favor with the prophet of all good amateur onithologists,-- Dr. Coues. Mr. Hornaday[1] and Mr. Stephens[2] demand that all birds and mammals be supplied with common names. Their claim seems to be that trivial names are more easily comprehended by the public than scientific names. It has been my experience that *Ardea virescens* means, to the average person, quite as much as Green Heron. Although some names as duck, sparrow and woodpecker have ideas hitched to them, such concepts are usually worthless. On this point we will speak later.

Another class demanding attention and common names, is the great tribe of half scientists--those who find a pleasure in knowing something of the relationship of animals. They are terrified, however, by scientific names and are content to keep such in a closed "key" or "check-list," knowing the birds by their number as if they were so many prisoners. Why not use the name that every one will know? The scientific names must be learned sometime, thus doubling the work. Why not learn them at once?

Names of Latin form are a necessity for several reasons, so evident that it seems a waste of space to mention them. In the first place they are a necessity because not all people speak one language. Latin being the most universally known is the best language from which to build our handles, graspable by scientists of whatever nationality. Secondly, it is impossible to find enough common names to supply all the species of birds. Hear now what Dr. Allen says:[3]

"As regards the names of species of animals or plants, but a small proportion are ever recognized in any vernacular tongue, because unknown to the average layman. When discovered and made known by science, a vernacular name is often invented for them, as well as a scientific one. Yet many of the most remarkable and familiarly known animals and plants never acquire a name other than the scientific one, compounded of Latin or Greek, which the laity adopt in common with scientists, and never even dream that they are using the technical language of science. Hippopotamus, rhinoceros, and the names of many of our ornamental plants are cases in point."

With many of our American birds we use the generic names as trivial terms. No one has trouble with phainopepla, leucosticte, junco, pyrrhuloxia, merganser or vireo when used as common names; perhaps they look more terrific when printed in italic. If I am not mistaken Vireo and Junco were adopted by a vote of American ornithologists as being preferable to Greenlet and Snowbird.

Another reason for using Latin names is that they show us something of the relationships of animals. Thus if one speaks of a *Dryobates* or a *Dendroica* or a *Salpinctes*, we know nearer what group of species is intended than if woodpecker, warbler or wren is used. That is to say, the scientific is applied with more exactness than the common name.

There is another trouble with trivial names. They are coined by anyone who takes a notion and while not differing so far from scientific names, they do differ in being purely local. The result is that one bird species may have many names, or, that several birds may have the same name. Thus *Colaptes auratus* has been found to sport at least thirty-six common names. [4] Again the name Yellow Hammer is used for *Emberiza citrinella* in England, for *Colaptes auratus* in the eastern states and for *C. cafer* on this coast.

Mr. Gordon Trumbull,[5] at great pains, has collected the names used by gunners for the various game birds. This book illustrates the great confusion which comes from the use of common names.

It might be possible to have uniform common names for well known birds, but when we come to peculiar forms as *Pyrrhuloxia* or *Phainopepla*, we have no common names and the trouble is still worse as we go into Mexico or Africa. Then again even if we found it possible to use English names for all mammals and birds or even all vertebrates, there are still unprovided for hundreds of thousands of invertebrates as suggested by the Rev. W. F. Henninger.[6] Not only have we a host of living forms, but to be consistent we should have to find names for the paleontologist with his thousands of vertebrates and invertebrates.

If, as Mr. Beal [7] has told us, grangers prefer and use scientific names and terms certainly ornithologists and oologists who pretend to know something of science can use scientific names. I would suggest that we do away with trivial names in our literature and correspondence at least. This would simplify things immensely. Not only would space be saved in faunal lists but in exchanging specimens one would need be familiar with only one set of names. It is extremely annoying to receive a list of trivial names and have to translate them before knowing what species are offered. Ichthyologist, mammalogist, herpetologist, and invertebrate systematists seem to struggle along without the use of trivial names; why cannot ornithologists? If we had a list of common names which were ordinarily recognized, they would be useful, but such a thing is impossible, and why we should advocate the use of such names as smew, jabiru, limpkin, parauque, grassquit and dickeissel is a fact I do not understand. Scientific are more accurate than, and as readily used when known, as trivial names, in fact, are often preferred. The recognition of both increases, without any accompanying advantage, the labors of memory; common names can never become to any extent so well known as the scientific. These are the reasons for which I advocate abandoning trivial terms.

Richard C. McGregor.

Palo Alto, Cal.

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1 *Auk* XII, 91.
2 *idem* 194.
3 J A A *Auk* I, 303.
4 Audubon Mag. I, 101.
5 Names and Portraits of Birds.
6 *Osprey* IV, 12.
7 F E L Beal, *Auk* XII, 192.

Importance of Accuracy in Lists.

Every bird student and collector will read with pleasure such lists as that of Mr. Price on the Birds of the Lower Colorado Valley, and that other lists are to be published from time to time. At the start, however, I wish to give a word of caution against placing in such lists any bird that has not, without a shadow of doubt, been identified either by actual specimens secured or by familiarity with the species. While I do not wish to detract from Mr. Price's observations, a careful perusal of his list shows that nineteen out of ninety-one birds mentioned are either doubtful or simply a guess as to their identity.

In this age of careful and systematic research our lists, which are to be the basis of all future work in that line, should contain only actually identified species. In connection with such a list, a sort of supplementary one should follow, giving all information possible as to birds that were observed but of whose identity there was a doubt. In other words, leaving for the future observer a chance to follow up such observations and earn for the bird a place in the list proper.

Every observer has to fight constantly against the inclination to identify a bird when he feels in the bottom of his heart that he is not quite sure of it. So he may put it down with more or less elaborate notes which may be confirmed afterward by some observer with more time or better facilities, or it may not. In the one case by a lucky guess he places on the list a name which rightfully belongs there only after identity by another. In case of an unlucky guess he has placed on record something that causes more or less confusion to others for years to come.

So I say put in the lists only such birds as are without question and absolutely identified. The principal value of these lists will be to define the geographical range of species and subspecies and in some cases the lines are so finely drawn that identity in the field, excepting under the most favorable conditions, is almost impossible. In such cases enough specimens should be secured to settle the matter. If this cannot be done then the fact that cormorants, or whatever the bird may happen to be, has been seen should be mentioned in the supplementary list, leaving the identity of the species to whoever may follow, after which it may rightfully belong in the list proper.

Frank S. Daggett.

Pasadena, Cal.

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Book Reviews.

Natural History of the Tres Marias Islands, Mexico. By E. W. Nelson, North American Fauna No. 14, U. S. Dept. of Agriculture, April 29, 1899, pp. 97.

This paper contains all the information which the Department of Agriculture has secured through the work of Mr. Nelson of the Biological Survey, who thoroughly explored the Tres Marias group in May, 1897, making collections of birds and mammals and securing also specimens of reptiles, fishes, mollusks, crustaceans and plants, on all of which complete reports have been given in the present work. The general description, birds, mammals and a partial bibliography of the islands are by Mr. Nelson.

From the introduction it appears that the islands have been known since 1532 but no scientific work was accomplished there until 1865 when Col. A. J. Grayson visited the group. The four islands are 65 miles from San Blas, and the highest of the group, Maria Madre, reaches an elevation of 2,000 feet. The islands are mountainous and fresh water is scarce in summer. Mr. Nelson records 83 species and subspecies of birds from the group.

It appears that the bird life of the islands is somewhat restricted and there is a noticeable lack of the species occurring on the adjacent main-land coast. This Mr. Nelson attributes to the scarcity of water and the prolonged dry season of the Tres Marias. In the list which is given, numerous North American species are noticeable. From the Tres Marias group was described Forrer's Vireo (*Vireo flavoviridis forreri*) mentioned in the July-August BULLETIN. The paper is but another of the admirable series constituting the *North American Fauna*, reflecting at the same time much individual credit upon Mr. Nelson. It will prove of interest to Coast workers and especially to any intending to undertake tropical work in ornithology. C. B.

A REVIEW OF THE ORNITHOLOGY OF THE GALAPAGOS ISLANDS. With Notes on the Webster-Harris Expedition. By the Hon. Walter Rothschild Ph. D., and Ernst Hartert, Plates V. and VI. Reprint from *Novitates Zoologicæ*, Vol. VI. August, 1899, pp. 86-205.

From the fact that some of our members have made collections in the islands, and several others, members of the Anthony party, made an attempt last spring to reach the archipelago, a short notice of the present paper seems desirable. The paper consists of six parts. I. Introductory Notes. II. Diary of Charles Miller Harris. III. Notes from the Diary of Mr. F. P. Drowne. IV. General Remarks about the Fauna of the Galapagos Islands. V. The Birds of the Galapagos Islands. VI. List of the Birds Known to Occur on the Galapagos Islands.

Certhidea olivacea ridgwayi, *Geospiza darwini*, *G. dubia simillima*, *G. fuliginosa minor*, *G. scandens septentrionalis*, *Nesopelia galapagoensis exsul* and *Creciscus sharpei* are described as new. Four species of *Pyrocephali* are reduced to synonomy, *P. nanus* and *P. dubius* alone being recognized. "Only two forms can be distinguished from the Galapagos Archipelago, the forms separated by Ridgway on account of certain alleged differences in colour, not being recognizable." The differences in color assigned by Ridgway to *Certhidea salvini* and *C. albemarlei* are said to be due to different ages of the specimens. These two names are, therefore, discarded.

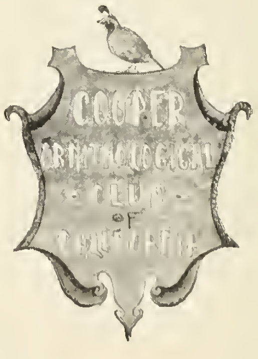
Perhaps the most radical change in nomenclature is the use of trinomials for the local forms of *Passeres*, which proceeding seems quite reasonable however. "If trinomials are used everywhere else, there is no reason why the birds of the Galapagos Islands should be deprived of this most useful form of nomenclature. In cases where certain individuals of representative forms are hardly, if at all, distinguishable, but where a series is easily separable, the recognition of subspecies is inevitable. Our material has generally left very little doubt to us, whether we should treat a form as species or subspecies."

In the list of birds known to occur on the islands, 108 species and subspecies are given, representing fifty genera. Of these seventy-nine are peculiar to the ornis. Plate V is poor. It illustrates *Diomedea irrorata*, *Phaethon æthereus* on its nest, *Anous stolidus galapagensis*, and *Amblyrhynchus cristatus*, all from Hood Island. Plate VI is interesting and useful. It illustrates Bills of the Genus Geospiza. Seven pages are devoted to general remarks about the origin of the islands and their fauna. "There are two theories: viz., that of Darwin, Wallace and most other naturalists, that the islands were uplifted from the ocean and never were in connection with the continent of America, or with each other; and that of Dr. Baur, who said that the islands were once connected with America and with each other, and were submerged in or after the Eocene period. Both these views must be taken into earnest consideration."

Having considered all the evidence in the case and having made a careful study of their ample material in the bird line, consisting of 3075 skins from the Harris expedition, the Baur collection of about 1100 skins, and constant access to Gould's and Salvin's types in the British Museum, Dr. Rothschild and Mr. Hartert make the following conservative statements: "I. The entire fauna of the Galapagos Islands derived originally from America. II. It is uncertain whether there has ever been a land-connection between the various islands and between the islands and the continent or not." R. C. M.

A Club Crest.

The accompanying design has been adopted by the Cooper Ornithological Club as its official crest and will be used as an imprint in connection with the issuance of special publications and monographs by the Club. It has also been arranged to have the crest imprinted upon stationery for the especial use of members of the Club, a majority of whom have already adopted the idea.



The design was drawn by Mr. W. Otto Emerson, a prominent artist and Club member who has in process a striking cover, for "The Condor," when the present BULLETIN enters upon its second volume under its new title.

General News Notes.

A NOTABLE EGG COLLECTION.

It may prove of interest to western oologists to learn that during the past few months two Californian collections have changed hands. The extensive collection of H. R. Taylor has been broken up and the greater part of it acquired by Miss Jean Bell of Ridley Park, Penn. Recently the entire private collection of C. Barlow has passed into Miss Bell's possession, the owner feeling that the completion of the collection had been rendered difficult by an entire absence of time to secure and add new species. The features of the Barlow collection were its raptores, select sets with nests, and a fine representation of Farallone species.

It is interesting to note the extent of the very choice oological collection now possessed by Miss Bell, as it is perhaps the largest and most valuable private collection in the United States. Into this superb collection have been absorbed the private cabinets of Messrs. Josiah Hoopes, Isaac Reiff, H. K. Jamison, J. W. Preston, Watson Bishop and C. Barlow besides over 1000 selected sets from the collection of Thos. H. Jackson and several hundred choice sets from H. R. Taylor's collection.

The collection is finely represented in raptores, containing among other good things series of Everglade Kite, Sharp-shinned and Broad-winged Hawks with nests, Canada Jays, Ravens, rare Sparrows etc. Interesting individual sets are Solitary Sandpiper 1-5 (unique) and California Vulture. 848 species and sub-species on the A. O. U. check-list are represented in the collection, which is contained in a special museum building built purposely to receive it and to which has recently been added an extension to accommodate newly acquired specimens.

An interesting event occurred at noon on Sunday, October 15, when Mr. Chester Barlow, editor of the Cooper Ornithological Club's BULLETIN, and Miss Jeannette E. Nicholls were united in marriage at the home of the bride's parents in San Jose, California. Miss Minnie Winter acted as maid of honor and Miss Marie Williams as bridesmaid, the groom being attended by H. R. Taylor. The ceremony was performed by Rev. C. J. Thompson, in the presence of relatives and a few intimate friends of the family. The bride is one of the most charming young ladies for which the "Garden City" of the state is noted. The groom holds a responsible position in the Santa Clara Valley Bank, and has a host of friends in and out of scientific lines who will wish the couple many happy years. After December they will make their home in Santa Clara.

Among the choice gifts was a handsome dinner set of Haviland china from the Northern Division of the Cooper Ornithological Club, of which Mr. Barlow has been the popular secretary for over six years. The presentation, a complete surprise, was accompanied by autographic congratulations from the members, bound into a unique souvenir, beautifully designed by Otto Emerson and artistically inscribed as follows:

"With compliments and all felicitous wishes to our good friend, our honorable secretary and editor, Chester Barlow, on his happy accession of a Bird of Paradise! From the Northern Division of the Cooper Ornithological Club of California, October 15, 1899." To which the editorial associate, having here for once personally asserted his prerogative, can add or detract nothing. H. R. T.

The expedition sent out to the Yukon River district by the Biological Survey in charge of Messrs. Wilfred H. Osgood and A. G. Maddren, and accompanied by Dr. L. B. Bishop, has returned and Mr. Osgood has been spending a few days at his former home in San Jose. With the exception of being capsized near Circle City and losing all their collecting equipage save their specimens, the party had few mishaps and accomplished much work of permanent value. The northern range of many species was very materially extended. Mr. Osgood left for Washington Oct. 29.

Word has been received from Joseph Grinnell who has spent the past eighteen months on the Kowak river in the Kotzebue Sound region, Alaska, above the Arctic circle. They were ten and a half months without communication with the outside world. On July 9 their little craft, the "Penelope," broke through the ice of Kotzebue Sound on its way to Cape Nome where they arrived three weeks later. Here the party will remain until late in September, stopping at Dutch Harbor, in the Aleutian islands on their way home.

A great mass of material of rare interest has been collected and numerous notes and facts recorded, which cannot but delight the ornithological world. Mr. Grinnell's reputation for accuracy of observation and indomitable energy is well known and the results of his explorations in this heretofore unknown region will not only redound to his credit, but to that of the Cooper Ornithological Club, of which he is an active member, as well.

BULLETIN
of the
Cooper Ornithological Club
OF CALIFORNIA.

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EDITORIAL NOTES.

As a Club accomplishment, the members of the Cooper Ornithological Club may feel a pardonable pride in the completion of Volume I of the BULLETIN, and a glance backward to the time of its inception is not irrelevant at this time. Formerly the Club secured uncertain space for its proceedings in current ornithological magazines until the expansion of the Club and the gradual contraction of its publishing space made this system of publication wholly impracticable. Then was the proposition to establish its own Bulletin brought before the Club. It was at first proposed to publish a quarterly of twelve pages, as the Club did not wish to attempt more than it could accomplish. However the more sanguine members favored a bi-monthly of sixteen pages, and as such the BULLETIN was launched, its success being at that time somewhat dependent upon the outside support it might receive.

Now, at the conclusion of the year, we find that the issues have ranged from sixteen to twenty-four pages each, issued promptly on the fifteenth of each publishing month, and financially the paper has far exceeded the success anticipated by its most ardent supporters. It is proper to remark that the numerous valuable papers presented during the year and the success of the BULLETIN itself, is due largely to the active interest shown, and aid extended the editors, by individual Club members. Without such united effort the Club could not have accomplished the work which it has, and to its members as well as outside supporters the editors express their appreciation. Under its new title, "The Condor," the magazine will begin Volume II, its editors feeling that the unique and briefer title will prove a material benefit.

One of the most notable published photographs of the year is that of the founders of the American Ornithologists' Union appearing as frontispiece in *Bird-Lore* for October. The plate is a composite one of photographs taken in or about 1883 and is unusually interesting as showing many of the now veteran workers at a time when they were actively engaged in field work and the making of ornithological history. Marked changes are observed in most cases when the photographs are compared with those more recently taken, and a number who grace the present plate have since passed away, among them being Spencer F. Baird, Major Chas. E. Bendire and Geo. N. Lawrence.

Through a fortunate coincidence we have received contributions from both Messrs. O. W. Howard and Richard D. Lusk on the nesting habits of the Sulphur-bellied Flycatcher in Arizona. We have accordingly given both papers space in this issue, feeling that an increased knowledge of the habits of this little-known species will be welcomed by ornithologists. Mr. Howard's notes on the Olivaceous and Buff-breasted Flycatchers also present many valuable facts new to science.

We devote a portion of our space this month to a "reverie" by Mr. John M. Welch, whose love for the "poetry of Nature" must have been shared by every true ornithologist who has sojourned in the timber-belt of the Sierras. After all, ornithology would lose much of its zest as a study, could we not constantly associate it with the activity of out-door life, and well 'tis so!

During 1900 the Cooper Ornithological Club will issue several special publications of special interest and importance to working ornithologists. This becomes necessary with the receipt of lengthy manuscripts—monographs in fact—which cannot be published entire in the BULLETIN, and which are in every way worthy of being given the importance of separate publications of the Club.

With the advent of winter evenings and abundant opportunity to peruse last season's note books, there should be an influx of absorbing papers, such as come only from the active field-workers.

The BULLETIN, although beginning its second volume under the new cognomen, *The Condor*, will remain under the same management as heretofore, being fully supported by the Club.

Gray-crowned Leucosticte on Mt. Whitney, Cal.

While making the ascent of Mt. Whitney, July 23, I found the Gray-crowned Leucosticte fairly abundant. In the Upper Crab-tree meadow half a dozen were seen feeding about moist grassy places, and at the foot of the trail to the top, at the old bolometer station, about 12,000 feet elevation, a dozen or more came into camp after crumbs, hopping within five feet of members of the party.

Right under the crest of Mt. Whitney, at an elevation of about 15,000 ft., a pair were gleaning food from a large snow drift. This bank had melted, leaving cones of snow 18 inches high all over its surface, and the birds flew from cone to cone examining all sides. Upon investigation I found quite a number of lepidopterous insects (no coleoptera) adhering to the moist surfaces and the birds were evidently feeding upon them. A storm of hail passing over drove the birds under granite slabs for shelter, but they were back onto the drift as soon as it ceased. Specimens taken and dissected, at 11,000 feet elevation, showed no trace of insect food. However, it is of interest to know that the highest point in the United States outside of Alaska, (Mt. Whitney 15,086 feet elevation) can sustain bird life. I saw no other variety of bird above the timber line

Frank S. Daggett.

Pasadena, Cal.

* * *

Official Minutes of Northern Division.

NOVEMBER.

The Division met at the home of H. C. Ward in Alameda Nov. 4, President Emerson in the chair and thirteen members in attendance. Lawrence Kessing of Alameda was elected to active membership. Bills for current expenses, amounting to $3.15 were paid. Upon motion, Mr. Emerson was requested to complete his design for a new cover for the Bulletin, when it shall begin its second volume as "The Condor," and after approval by the Publication Committee a cut was ordered made to be used on the January issue. Nominations for officers for 1900 resulted as follows: For President, W. Otto Emerson; Vice President, Theodore J. Hoover; Secretary, C. Barlow; Treasurer, Donald A. Cohen. Mr. McGregor spoke upon a new line of work which the Club proposes to undertake in 1900, that of issuing special publications or memoirs as funds and material warrant. It was ordered that such publications be authorized and issued by the Club from time to time and under such title as may be later determined upon. F. W. Koch of Merced and Wm. R. Flint of Oakland were dropped for delinquency. Mr. McGregor presented an interesting paper entitled "Dicromatism in the Genus Carpodacus" which was amply illustrated with skins of various forms of the *Carpodaci* group. A paper by Mr. Jos. Mailliard entitled "Land Birds of Marin Co., Cal." was read by title owing to the lateness of the hour. Adjourned to meet at the home of C. Barlow in Santa Clara on January 6.

C. Barlow, Division Secretary.

Official Minutes of Southern Division.

SEPTEMBER.

The Division met at the home of M. L. Wicks Jr., with President McCormick in the chair. The name of Mr. Roth Reynolds was proposed for active membership. The name of Harry H. Dunn which was proposed for membership at the last meeting was withdrawn. The Outing Committee failed to decide upon a place for the outing and was given further time to act. Resolutions from the Northern Division to change the present name of the Bulletin to that of "The Condor" were read, the change to be made with the January number. A letter from C. Barlow pertaining to the subject was also read. The change was adopted by unanimous vote of those present. It was, however, recommended that the words "Continuation of" be dropped, making the new title read: "The Condor; Bulletin of the Cooper Ornithological Club." Mr. Daggett read a paper entitled "Desirability of Positive Identification in Lists." Two papers from the Northern Division were read. Adjourned.

Howard Robertson, Division Sec'y.

MR. F. S. DAGGETT'S PRIVATE REPORT OF THE OUTING MEETING.

My Dear Robertson:

The Cooper Ornithological Club held its annual meeting at Wilson's Peak Oct. 28-30, the feature this year being the attendance of visitors, among which were A. N. Wright, Mrs. F. S. Daggett, Miss Ethel Daggett and Geo. Key. Several papers of rare interest were read (besides the Los Angeles *Times*, Los Angeles *Express*, Pasadena *Star* etc.) Flash messages were sent to absent members at Los Angeles 23 miles distant, also to Santa Monica 41 miles away, (no reply received). The members made their headquarters at Martin's Camp but extended their investigation to Strain's Camp beyond; in fact covered the peak pretty thoroughly during the three days No new birds were noted but many old friends in the shape of Thick-billed Sparrows, Mountain Chickadees, West. Bluebird and a pair of California Vultures circling over Eaton Canon were noted.

When the party started down Monday morning the thermometer registered 38 deg. and they were all awakened in the night by a hailstorm, the pellets as big as eggs (*Hummingbird's*) banging on the shake roofs with a tremendous noise. An interesting letter from Joe Grinnell written a few days before he left Cape Nome for home was also read. By the way, Robertson, I was the only *member* present, but we had all the elements of a successful meeting and with the above pointers you ought to give a report which will make the Northern fellows green with envy! Where were the rest of them? Not necessary to state number of members present!

Truly Yours,
FRANK S. DAGGETT.

* * *

Publications Received.

Jordan, David Starr and Richard C. McGregor. List of the Fishes Collected at the Revillagigedo Archipelago and Neighboring Islands. (U. S. Fish Com. Rept., 1898, 271-284.)

Newton, Prof. Alfred. A Dictionary of Birds. Cheap Issue, Unabridged. Oct., 1899, pp. 1088. Macmillan Co., New York.

Norris, J. Parker Jr. Some Facts About the Consistency of the Chairman of the A. O. U. Committee on Bird Protection. Privately Printed, Philadelphia, 1899.

Annual Report of the Smithsonian Institution, 1896.

Bird Lore, I, No. 5, Oct. 1899.

Journal of the Maine Ornithological Society, I, No. 4, Oct., 1899.

Maine Sportsman, VI, Nos. 73 and 74, Sept. and Oct., 1899.

Museum, V, Nos. 11 and 12, Sept. and Oct., 1899.

North American Fauna No. 16. Results of a Biological Survey of Mt. Shasta, Cal., Oct. 28, 1899.

Oologist, XVI, Nos. 9 and 10, Sept. and Oct., 1899.

Osprey, IV, Nos. 1 and 2, Sept. and Oct., 1899.

Publications of the U. S. National Museum, Nos. 1076, 1078, 1079, 1080, 1083, 1090, 1091, 1093, 1116, 1118, 1134, 1144, 1153 and 1166.

Recreation, XI, Nos. 3, 4 and 5, Sept., Oct. and Nov., 1899.

Sports Afield, XXIII, Nos. 4 and 5, Oct. and Nov., 1899.

Sunset, III, No. 6, Oct., 1899.

Wilson Bulletin, No. 28, Sept. 30, 1899.

List of Members of the Cooper Ornithological Club of California

NOV. 15, 1899.

(Membership is in California unless otherwise designated.)

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THE CONDOR.

— CONTINUATION OF THE —

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— A BI-MONTHLY MAGAZINE OF —

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A Part of My Experience in Collecting.

BY LYMAN BELDING*

During the spring of 1876 I secured a volume of *California Ornithology* and began industriously to collect and identify the birds of this state. I had been an ardent sportsman ever since I was a small boy and had supposed that I knew most of the birds, but my first bird book astonished me with many I did not know and had never heard of. I had never met an ornithologist or oologist and did not know there were any in California. I had met several persons who could mount birds and I had mummified and mounted some, but I soon found that a mummy was not a joy forever if it was a thing of beauty when first mounted. I had no difficulty in identifying my specimens, but in order to be sure my identifications were correct, I sent specimens to Washington for Mr. Ridgway's opinion.

He and Prof. Baird gave me kind encouragement and Mr. Ridgway was very patient and prompt in writing long, interesting letters concerning the specimens I had sent. I was given many valuable books from the National Library, after which Prof. Baird sent me a catalogue of the publications it contained and told me to ask for anything I wanted. I was very grateful for these kind attentions and my zeal for the work was greatly stimulated. I do not think this kind encouragement was exceptional, for I think Profs. Baird and Ridgway were always glad to assist the student of natural history.

My success in identifying specimens was due, partly, to my already knowing many of the species and partly to the excellence of Baird's descriptions in *California Ornithology* and Vol. IX, *Pacific R. R. Reports*, and again, partly because many sub-species had not yet been recognized. I was sometimes materially assisted by Wilson's simple descriptions. Fortunately, my *California Ornithology* contained uncolored plates. I found more pleasure in identifying strange birds than in anything else, except, perhaps, collecting in the Sierra Nevadas. I need not explain this to those who love the woods and mountains. I never went on a collecting trip, especially the long ones, without taking some of my most needed books, and Vol. IX was always one of them.

In the spring of 1881, Messrs. Baird and Ridgway requested me to visit Guadalupe Island, and a sum of money was promised for 80 skins of the island birds. I went to San Diego intending to go to Guadalupe, but several persons who had been there sealing, advised me not to go. Mr. W. W. Stewart told me of Dr. Edward Palmer's experience there, who, with his son Harry Stewart, had nearly starved on the island; that the Mexican garrison had been removed and that I would find the island uninhabited. Reluctantly I gave up the voyage to Guadalupe and went to Cerros Island. Cerros or Cedros was the second objective point of my instructions. I found Cerros quite destitute of birds, and after staying there twelve days we went to Scammon's Lagoon for the purpose of collecting on the peninsula. The surf was so dangerous we did not attempt to enter the lagoon. It was here that Mr. Anthony's schooner was wrecked in 1898.

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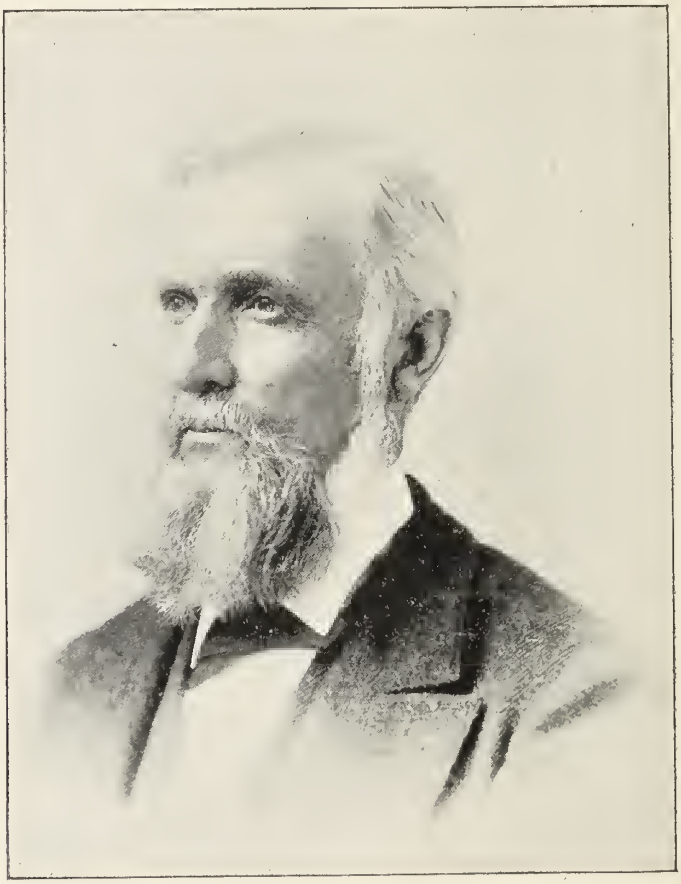
*Read June 6, 1899, before the Section of Ornithology, California Academy of Sciences, and kindly sent the Condor for publication by Mr. Belding.

From off Scammon's Lagoon we followed the coast northward, went ashore at Santa Rosalie Bay for a few hours, and then continued up the coast to San Quentin Bay where I spent ten days. We were compelled to anchor near the mouth of the bay and a long tramp was necessary to reach any good collecting ground. Consequently, when I returned to San Diego I felt that my voyage had been anything but successful, though I got the types of *Phalacrocorax dilophus albociliatus* on Cerros, besides a new lizard or two, and at Coronada Islands during the last of the voyage I got Mr. Brewster's type of *Hæmatopus frazari*. At San Quentin Bay I first got specimens of the bird which Mr. Ridgway later named *Ammodramus beldingi*. As I had not strictly followed



LYMAN BELDING.

Honorary Member of the Cooper Ornithological Club, Active Member of the American Ornithologists' Union and prominently identified with Pacific Coast ornithology since 1876. One of Mr. Belding's most favorably known works is his "Land Birds of the Pacific District," besides its companion part, "Water Birds of the Pacific District," which was presented to the Cooper Ornithological Club in manuscript form a few years since.

my instructions, I paid the cost of the voyage (about $500) and did not ask for any remuneration,—in fact, I have never received a cent for specimens or for any collecting I have done, nor would I have accepted money for my work.

During the winters of 1881-2 and 1882-3 I collected in the Cape region, from La Paz to Cape San Lucas, excepting the time that I was at Guaymas which was nearly all of December, 1882, and a part of April, 1883. My outfit from Washington did not accompany me to Guaymas and the Mexican customs officials would not pass it across the line at Nogales, but I afterward found it at La Paz, whence it had been forwarded from San Francisco by express. My collecting in the Cape region was satisfactory, notwithstanding some hardships I endured. The region is mostly a semi-desert, water is scarce and I several times suffered for the want of it. I made the mistake of collecting many things of which I knew little or nothing, instead of confining myself almost entirely to birds. Had I done this, one winter's collecting would have satisfied me quite as well as two.

I found San Jose del Cabo the best field of the low country and the Victoria mountains the best of the mountainous parts. I have often wondered why the sharp-eyed, indefatigable Xantus did not see *Geothlypis beldingi* on the San Jose river, where he spent a great deal of time, and also if it had rapidly changed since he was there some thirty years before. I do not think he was ever in the Victoria mountains or he would have found the very common *Junco bairdi* and other common birds of these mountains, which are known to the California Academy scientists as Laguna,—a decided misnomer—as the little lagoon that once existed at the lower end of a little valley, went down the mountain during a violent rainstorm which cut away a natural dam that held it. Then there are quite a number of lagunas or lagoons in the Cape Region.

The second time I was in the Cape Region I took only seventy or eighty bird skins, for I did not wish to get many. I consumed about a week of this time in getting two specimens of the new rail, *Rallus beldingi.* I only heard of one man at La Paz who had ever seen one and several hunters were surprised when I showed them one of the birds. These birds can best be obtained at low tide when they move about in the mangrove thickets in search of food. I got my specimens by patiently waiting for them to pass comparatively open spots in the mangle. I rode sixteen consecutive days without skinning a bird, though I occasionally shot them when in doubt of the species. My collecting basket during that time contained two very interesting aboriginal skulls which Dr. ten Kate and I got in a cavern. I have travelled considerably in the northern part of the peninsula, having, on one trip, been absent from San Diego sixteen days. I was at Laguna, which is about sixty miles south of Campo, in May, 1885. I secured three specimens of *Sitta pygmæa leuconucha* at this laguna. A few days later I tried in San Francisco to get specimens of *S. pygmæa* to compare with them, but did not succeed in finding a solitary specimen. I then donated the specimens to the National Museum.

About this time I thought it time for me to stop ornithological study unless we could have a good study collection of bird skins in California, and thinking the Academy the right place for such a collection, I advised all or many of my California correspondents to contribute to the California Academy of Sciences. I believe that advice has borne some fruit, but not as much as it should have borne. I knew that under the trinomial system, *hair-splitting* would be almost without limit. I had noticed local differentiations, but could do nothing without many specimens for comparison, and after all, "was the game worth the candle?" I doubted it. As nearly as I remember, in 1876, only two Screech Owls were credited to the United States. Now there are about a dozen subspecies and the Horned Larks have multiplied in like proportion. I remember reading a good article in the *Auk* some years since, in which the writer, Dr. Allen, asks in substance if it is profitable to name these slight divergencies. Nevertheless much can be said in favor of naming them,—quite as much as against it.

The pleasantest days I have spent since 1876 have been in the mountains of Central California. Since that time I have been in these mountains the most of each summer. I couple deer, grouse and quail hunting with bird study. At first I tried to connect botany with ornithology, but I could not look on the ground for plants and in the trees for birds at the same time. The ornithologist should, however, know the prominent plants at least. During my rambles I have noticed the hardiness of some of our mountain annual plants. I have seen the mercury down to 22 degrees on two successive mornings and no trace of frost afterward, except that a few of the tenderest ferns were killed. I suppose this may be owing to dry air and cool nights, the latter preventing the rapid growth and consequent tenderness of kindred plants grown where both days and nights are warm.

The first eggs I collected were about on a par with my first bird skins. I picked a hole in each end with a pin, never having seen or heard of egg drills and blow-pipes. Eggs of Townsend's Solitaire and others quite as choice were thus punctured. I believe I took the first eggs of the Solitaire, which were sent to the National Museum. The nest is composed almost wholly of pine needles and can readily be distinguished from any other nest of the Sierras. It is usually on the ground, but I have seen one in a hole in a stump about a foot from the ground. Perhaps there is no part of the world more interesting than the high Sierras of Central California. Neither Heermann, Gambel or Xantus explored them. Mr. Bell got the Round-headed Woodpecker in Calaveras or Tuolumne county, but this he could have done at an altitude of 2500 feet or less in winter. Prior to 1876 these mountains had hardly been touched by the ornithologist, the route immediately along the Central Pacific Railroad and about Lake Tahoe being the only parts that had been visited. Considerable work had been done south of Tehachapi; Newberry had followed the Sacramento river to the Klamath Lakes and northward and Capt. Feilner had collected at Fort Crook and about Mt. Shasta, but the mountains in the central part of the state had been neglected.

If any of the young ornithologists of this state have not visited these mountains in summer they should miss no opportunity to do so. My most interesting observations have been those of evenings and moonlight nights in some secluded part of the forest where large game was abundant. I have often heard the Pygmy Owl, which Mr. Ridgway correctly says is diurnal and crepuscular and have quite as often heard the Flammulated Owl, which is strictly nocturnal and hard to get. I have only taken one specimen. The Western Barred Owl has never ceased to interest me, for it is quite familiar and seems to have a fondness for *talking back!* By imitating its shrieks and dog-like barkings, I seldom fail to get a response. I have several times been near panthers when they screamed and I can say positively that the Sierra panther does scream, although the panther of the Adirondacks is said to be a silent animal, while that of the Cape region also screams. One screamed near our camp one night and our pack mule was so badly frightened that it rushed hurriedly to the camp-fire for protection. One night at the Calaveras Big Trees a panther gave several loud screams which were followed by low chest growls. Immediately every animal about the place was silent, although previously about two dozen bells on sheep and cattle in the corral had been tinkling, and a dozen or more horses on a board floor had been continually stamping. But the panther silenced every bell and hoof, and the silence continued several minutes. I have seen a yearling deer crouch motionless fully half an hour after a panther screamed about one hundred yards away. I was sitting in the bushes near a deer lick and the deer was about twenty-five feet from me. The panther probably catches fawns and young deer by terrifying them. I have caught fawns by yelling at them.

The high Sierras have been explored but little in winter. I have been in the lower edge of the fir or pine belt the most of ten or eleven winters and have several times gone as high as 5,000 feet, but these higher ascents were only when there was but little snow. About the middle of November some years ago I was at the summit of the Central Pacific Railroad, altitude 7,000 feet. The ground was mostly bare and I saw only a few birds and fewer animals, the Little Chief hare being one of the latter. The reptiles and batrachians were sleeping their long annual sleep which covers fully two-thirds of the year at this height, and the sleep of the marmot and some of the small animals is nearly as long. A few asters and *Sidalcea* were in flower in protected situations.

Summit is a good locality for making winter observations but when the snow is from ten to twenty feet deep, as it usually is in winter, snow-shoes would be a necessary part of the observer's outfit and snow-blindness must be guarded against. I hope this mere outline of my experiences in collecting will interest the young ornithologists of the Academy, and in closing will say that, owing largely to the good influence of the Stanford and State Universities, scientific study is now much better appreciated by the people of California than it was when I began, in my crude way, to study ornithology.

The Varied Thrush in Summer.

BY JOSEPH GRINNELL.

[Read before the Southern Division of the Cooper Orn. Club, Nov. 25, 1899.]

THE Varied Thrush (*Hesperocichla nævia*) is pre-eminently a bird of the West, being confined principally to the Pacific Coast from Alaska to California. It is a familiar winter visitant throughout the southern coast region, and here in Southern California it often appears in late fall in very large numbers in the foot-hills, feeding on the berries of the California holly. The summer home of this bird has been considered to be mainly north of the United States and chiefly within the heavily wooded Sitkan District, but ranging northward less commonly through the Yukon Valley. I found the Varied Thrush breeding in moderate numbers at Sitka, Alaska in the summer of '96. But I was rather surprised to find the species a much more numerous breeding bird in the Kowak Valley in northwestern Alaska, which is the extreme north of its range. In the spring of 1899 it appeared commonly in almost every tract of spruces, as near the coast of Kotzebue Sound as the first timber in the Kowak Delta, about ten miles east of Hotham Inlet. On May 28 I found it nest-building near upper timber-limit on the base of the Jade Mountains, on the northern border of the Kowak Valley and near the head of Hunt River.

At our winter camp which was located near the confluence of Hunt River and the Kowak, about 175 miles east from the mouth of the latter, the first Varied Thrush arrived on the 21st of May, when the twanging notes of the males were heard several times during the morning and evening. The next day they had arrived in full force, and were to be seen and heard in every heavy stretch of woods. The snow had by this date nearly all disappeared, though the rivers and lakes were still covered with ice. Their food at this season consisted largely of wild cranberries and blueberries which were left from the previous summer's crop, and had been preserved under the winter snows. The birds were quite lively for members of the thrush tribe, which are usually of a quiet demeanor. When not feeding on the ground in one of the fruitful openings in the forest, they would be seen in wild pursuit of one another, either courting or quarrelling. The males were often seen in fierce combat, that is, fierce for a thrush. Of course some female ensconsed in a thick evergreen in the vicinity was the cause of the dispute. I never saw just how a quarrel would commence. The swift pursuit would follow a tortuous route, twisting among the close-standing trees and across openings, so rapidly as to be difficult to follow with the eye. The *finale* would be a short scrimmage among the thick foliage of a spruce, with a clatter of beating wings and a few sharp squeals like a robin's. They would fall slowly through the branches to the ground, when the contestants would separate, panting, and puffing out different parts of their plumage. The greatest apparent injury to either of the belligerents would be the loss of two or three feathers, yet one of them would consider himself fairly beaten, and soon retire, leaving the victor free to press his suit.

The song of the male Varied Thrush consists of a series of peculiar notes uttered slowly and at rather long intervals. Each note is complete in itself. It is a quavering *twang* with a faint rasping quality, the effect resembling the twang of a banjo string on a cracked bridge. These strange notes are produced in various keys, including a full octave, but the succession in which they are slowly uttered is irregular; a high note, then a low one, then a medium, with apparently no set arrangement. I have heard a single thrush from his secluded perch near the top of a dark evergreen, thus "sing" for twenty minutes at a time. It is an odd bird song, but when heard amid the solitude of the dark, damp spruce woods, it has an indescribably melancholy musical quality, which sets one to dreaming of far-away home. Many a half-hour have I spent lying on my back on some mossy hummock in the northern forest, spell-bound by this Mesmer of the woods. The ordinary call-note or note of warning of both male and female is a low liquid "quirt." It is heard quite frequently as one walks through the woods disturbing the thrushes, the sites of whose homes may be near by. In the Kowak Valley, I noticed the first signs of nest-building by the Varied Thrush, on the 25th of May, just four days after their arrival, and by the 28th nearly every pair were busy, for the summer is short and there is no loitering as in the case of many southern birds.

The female does all the work of constructing the nest, the male accompanying her constantly in her many trips after material, but as far as my observations go, never proffering any assistance. Many of the nests are built on those of the previous year as a foundation, and I even found three-storied nests. The old nests are flattened and dilapidated by the heavy August rains and winter snows, with the mud mostly dissolved out of them. During the winter a tour of the woods discloses hundreds of old thrushes' nests in various states of preservation, and in some sections nearly every tree harbors one or more. Where well-protected in dense spruce, they must survive many years. Probably the same pair of birds returns to a single nesting site for several successive seasons, especially if they raise their young there, unmolested. I found no evidence of any natural enemies of the Varied Thrush during the breeding season. The shrikes and small hawks seem to prey mainly on mice and lemmings with an occasional Redpoll.

All the nests of the Varied Thrush observed were in spruces, and varied in height above the ground from six to twenty feet, the latter being far above the average height which I should judge to be ten feet. Even in the tallest timber, the nesting sites are chosen in the lower foliage at a similar elevation. The parent birds are very solicitous about the safety of their homes, and the female, especially, exhibits great distress, when the nest is disturbed. The female performs the entire duty of incubation, at least I never discovered a male bird on the nest. The female sits very close, once remaining on the nest until I had climbed within a yard of her, and in this instance there were as yet no eggs in the nest. While one is near the nest, the female flies wildly around the tree at a short distance, uttering loud squeals and cries, much resembling those of the common robin. The male is less vehement in his protests and follows the movements of the female, but at a longer radius answering her screams with the ordinary liquid alarm note, frequently uttered. I often found it an unpleasant undertaking to rob a nest in the face of such unmistakable solicitude and remonstrance, and I would hurriedly leave the vicinity after the deed was one, like some criminal, to escape further contumely. An "egg-hog" *does* sometimes feel conscience-smitten, as I am willing to admit.

The nest of the Varied Thrush is usually built close to the main trunk of spruce, often directly against it, and supported by a clump of the stiff horizontal twigs or small branches. Sometimes the surrounding foliage renders the nest almost completely hidden from view. And then again, it may be supported by bare dead branches affording scarcely any screen. The majority of the nests are situated on the south sides of the tree-trunks, as probably being the warmest and dryest side, and then too, strong, cold north winds are of frequent occurrence. All the nests which I have examined are very much alike in composition and structure. The foundation is a rather loose and bulky mass of plant stems, dry spruce twigs and grasses, but the nest proper is a solid, closely-felted structure. The bottom and sides are substantially formed of a mixture of mud, and wet, partly-decomposed grasses and moss. The amount of mud varies in different nests, and in some there is scarcely any; but the various vegetable materials are always incorporated when wet, so that after the structure dries, the walls and rim are very firm like *papier mache.* When finished the nest presents a neatly moulded, cup-shaped cavity, with an inner lining of fine dry grasses. The measurements of a typical nest are as follows: Inside diameter 3.25 inches; depth, 2.25. Outside diameter, 6.50; depth 4.50. The weights of the dry nests vary from one-half to one pound, depending on the amount of mud in their composition.

The earliest egg of the Varied Thrush was found on June 2, and on the 4th, a fresh set of three eggs was taken; on the 6th, a set of four, incubation slight. The latter seemed to be the average date of completion of the full set of eggs, although a slightly incubated set of four eggs, was taken as late as the 23rd of June. Of four sets of four each taken on the 11th, one was fresh and in three, incubation was well advanced. I secured eleven sets of the eggs of the Varied Thrush. There are two sets of three, seven sets of four, and two sets of five eggs each, forty-four eggs in all. This series exhibits remarkable uniformity in size and coloring. The ground color is Nile blue, the exact tint varying somewhat, probably due to different terms of incubation and exposure to the light. The eggs are rather sparsely but evenly dotted and spotted with burnt umber and seal brown, with similar-sized "shell-markings" of ecru drab and vinaceous tints. The eggs of one set show larger blotchy markings of raw umber. One egg is almost without markings, thus resembling the robin's. There is a slight tendency toward a congregation of the markings at the larger ends, in some cases. In shape the eggs vary between ovate and short-ovate. The average measurements of the forty-four eggs are in inches, 1.18x.84. The largest egg measures 1.24x.88; the smallest, 1.10x83.

In size and ground color the eggs of the Varied Thrush closely resemble those of the California Thrasher, but the spottings are fewer, finer and much darker. Taking every character into consideration, the Varied Thrush's eggs appear unique and not to be confused with those of any other North American bird with which I am acquainted.

* * *

In the San Francisco *Chronicle* of Oct. 29, Mr. H. R. Taylor occupied a page with a delightful popular article on ornithology, with appropriate illustrations. Mr. Taylor has done much toward popularizing ornithology on the Coast by his frequent versatile, yet accurate, writings on birds.

All aspiring oologists in California who may have had designs upon the "first set" for the season have been thwarted by Mr. Grinnell's taking a set 1-3 Pasadena Thrasher on Dec. 15. And this so soon after Mr. Grinnell's return from eighteen months in the wilds of Alaska!

Mr. Chas. A. Keeler, well known as an ornithologist of ability, and author of "Evolution of Color in North American Land Birds," has recently issued a popular work under the title of "Bird Notes Afield," which is being well received on the Coast.

W. Otto Emerson,
President.

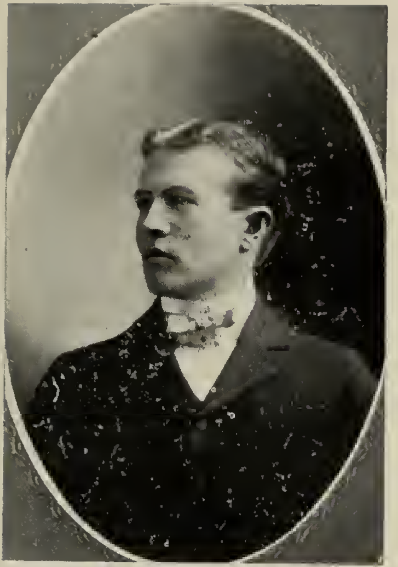
Theodore J. Hoover,
Vice-President.

Chester Barlow,
Secretary.

Donald A. Cohen.
Treasurer.

Officers Northern Division

COOPER ORNITHOLOGICAL CLUB, 1900.



A. I. McCormick.
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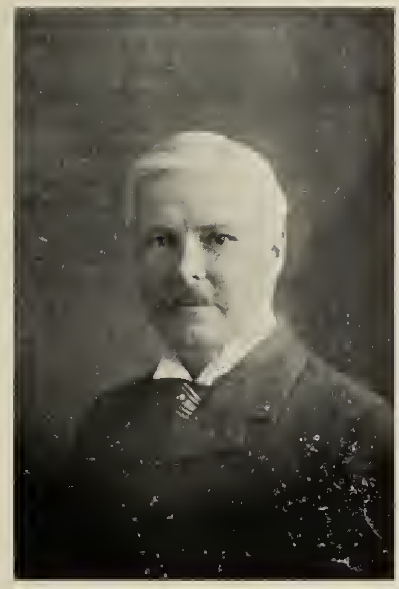

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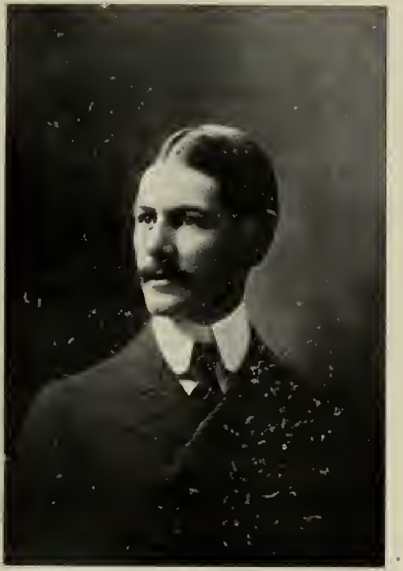
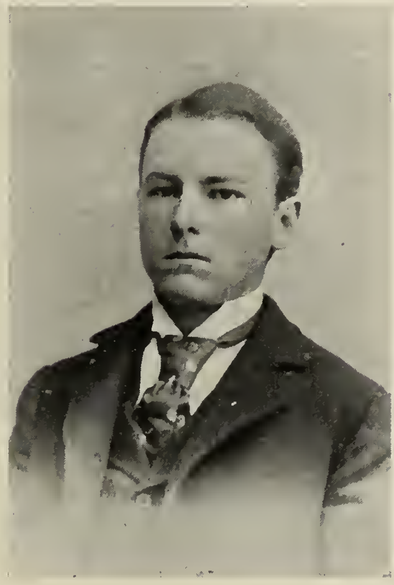


Howard Robertson,
Secretary.



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Officers Southern Division

COOPER ORNITHOLOGICAL CLUB, 1900.

Casual Observations on a Colony of Black-crowned Night Herons.

BY D. A. COHEN, ALAMEDA, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Jan. 6, 1900.]

DOUBTLESS ornithologists were surprised to see a nesting colony of Black-crowned Night Herons spring up in the city of Alameda, and have not ceased to expect strange things—the time when women no more adorn their headgear with any bird but English Sparrows—when all oologists blow fresh eggs with small holes and Duck Hawks learn to change their roost after having been robbed five or six times a season. I often wondered why the numerous Black-crowned Night Herons that roosted in the tall trees in town used them for a diurnal skulking place only and never nested within my recollection, although in 1883 I found two or three large, flat nests composed of sticks, in an oak grove frequented by these herons. It was not until 1898 that a nest was discovered in any of the roosting places and it is reasonable to conclude that eggs would have created young herons whose clamorous noises would have indicated their presence to anyone living within five hundred yards.

The 10th of May is the date I had fixed in previous years to obtain complete sets from the colonies I knew of in the county, and having climbed to the top of a tall cypress on our premises and found young almost able to fly on June 23, would indicate the parents began nesting at the common period. I was attracted to the tree by hearing the noises of the young the night before and was at the time over three hundred yards distant in an air line. The dense tree also held at the same date two nests of two eggs each, a nest of three young, unfledged, that snapped viciously at my fingers and coughed up the contents of their stomachs that had a "kill-me-quick," muscular odor. This vomiting seems to be a common trait of self-defense with this bird as noticed in other colonies. Also the young climb away along the branches at the intruder's approach, with the agility of a tight-rope performer, and a very severe shaking of the branches is necessary to loosen their hold.

The next tree, close by, held a nest containing one egg and was found empty two days later. In the third tree several sticks were placed crosswise in a likely position for a nest, but no more were ever added. All the nests were at least sixty feet from the ground close to the tree tops and highest of all was a nest full of English Sparrows. They were easy to reach, being placed on small branches near the main limb and were flat affairs, averaging one foot in diameter and composed of dead twigs of cypress and locust apparently detached from the trees by the birds. No more eggs were added by June 30. The shells once encircling the young lay directly below on the ground and spatters of dried egg with fragments of shell on the trunk and limbs just below the nests gave a clew to a previous possible combat. The larger brood of young were now flying and the younger brood kept up their noise for several weeks, and as no sounds of young birds or egg shells were heard and seen from any other of the numerous trees except from one group of cypress, where shells and noises indicated three or four nests, I am conscious of having ascertained the total juvenile census for that year. The colony roosted by day in the thick evergreen, departing at dusk in Indian file with many a "squawk" to the salt marsh half a mile distant, as has been their wont for years.

In 1899, on May 23, I climbed a "new" tree and found six nests, invisible from the ground, as in all cases, on account of the height and density of the trees. One nest was easily reached and the second was rather risky to get at, both near the main limb. The eggs of two more far out on the branches were taken in with the aid of a small tin can on the end of a pole, and the other two were too far out to reach, but eggs were seen in them. The pole was maneuvered with tediousness and difficulty among the many branches. Of the first three trees mentioned for 1898, the first one contained two sets of eggs which I removed, but subsequent sets were laid and young raised. Other high, gigantic trees were climbed, some having been trimmed up from the ground, rendering it necessary to use a ladder and a rope to gain foothold on the first branches. Small, weak branches for a few feet had to be overcome before firmer ones higher up were gained and a thick coating of accumulated guano and a sort of dust peculiar to thick evergreens which the heaviest rains fail to remove, many squeezes and contortions, the cumbersome work of bringing the pole and can being accomplished, standing room was frequently at a premium, and the swaying of the tree tops rendered it risky reaching for the eggs and it was safe only during intermissions to work the scoop on the eggs so as to insure no damage to them. Many nests were out of reach, so the pole was dispensed with nearly altogether and only several were "easy." All the nests held sets of three eggs except three nests of four eggs each, incubation fresh to far advanced. No young were noted. This data is also applicable to May 29.

In all, I judged there were sixty nests containing eggs, including those in trees not climbed, this being corroborated by the cries of the young emanating therefrom from one to two weeks later. Their racket continued as late as September in rare cases, so some sets were laid perhaps in late July. Their incessant din commenced about dusk and lasted long after daybreak. I slept outdoors most of the summer and listened to the din of of a heronry in town whether willing or not. (If anybody calls this a "shitepoke" town there may be some consolation in the thought that I saw a Green Heron roosting on a front yard fence in the main street of Alviso). The usual note was a "chuck, chuck, chuck, chuck" continued for a few seconds, varied with a "chucka-chuck-chuck, chuck-chuck" with an occasional ghastly screech or squawk. One bird after another in the same nest would keep the concert up all night with casual intermissions, and two or more birds keeping their own time created a rag-time jargon highly ludicrous.

At times a series of guttural squawks and yells from one spot probably indicated a scramble for food from a returning parent rather than a disagreement, the noises suggesting anything sepulchral and uncanny. The nearest approach to the "quack" note of the adult were guttural hisses and a squawk resembling that of a half-grown chicken. Even in the sunshine of midday the birds were not altogether silent. The trees were all close to the houses and barns as if so chosen for protection, and several times I noticed young birds on the tops of chicken yard fences or feeding at the trough. Others were walking about industriously seeking food, probably bits of fish that had dropped from the nests to the dry, parched ground, and instead of seeking safety by flight would hop to the low limbs and ascend foot-over-foot. Some were captured before getting out of reach and gave vent to loud, most diabolical squawks, alarming the nearest adults to fly out of the trees, and fought viciously, striking with their beaks, open-mouthed, with necks hunched up ready to strike at the captor's eyes.

The adults returned from the marshes apparently at intervals all night judging by the renewed clamor of the young. They were noticeable at dawn approaching with steady wing beat that changed into a long glide down an inclined plane toward the trees, then a few flaps and they were hidden in the tree tops. Others arrived at intervals up to 10 o'clock, low tides seemingly influencing late feeding. The feeding of the young is done apparently by the process of regurgitation and I have never detected one carrying food in its beak. The common note of the adult is heard from dusk to sunrise, much more so at dusk. They are sociable and peaceable yet ludicrously timid and when harassed by blackbirds and small hawks or even frightened by gun fire or earthquakes they freely utter loud, guttural squawks indicative of the highest expressions of cowardice and fear imaginable, laughable in the extreme. During the day, in early spring especially, they often use a garrulous note, a sort of subdued "cluck," exactly resembling the scraping of a tin pan with a spoon.

The Great Blue Heron is often found in the trees with this colony, being present chiefly at night, but I do not expect to see it nest. There is a smaller heronry of Black-crowns in the central part of Alameda near "Buck" Ward's house, over two miles distant, which was only started up this year, and the approximate number of thirty eggs taken was all the traffic would bear, if reports are correct!

* * *

Capture of a Condor in El Dorado Co. Cal. In 1854.

In the autumn of 1854, two men, Alonzo Winship, a former pony express rider on the plains, and Jesse Millikan, were acting as trackwalkers for the South Fork flume in El Dorado Co., Cal. Their cabin was situated between North and South Canyon, and one morning they noticed a large condor in a dead spruce tree, on the mountain side, below their cabin. Loading a rifle, one of the party started for the bird but it had disappeared. After breakfast Mr. Millikan started toward the head of the flume, whilst Mr. Winship went down the flume toward White Rock, eight miles away.

As he was crossing the aqueduct over North Canyon, he saw an enormous condor asleep at the base of a cliff that jutted about twenty feet above the flume. Surprised that the bird had not been awakened by his footsteps along the flume, he hesitated a moment, then decided to attempt to kill the bird. Having nothing but his shovel he threw it with all his force, striking the condor and breaking its wing. The condor, thus rudely disturbed, jumped from its perch, and running under the flume, started down the mountain toward the American River with Mr. Winship following closely after. The condor's broken wing impeded its progress, and finding its pursuer was gaining upon it, it turned savagely upon him and he was compelled to take refuge upon a granite boulder just out of its reach, realizing he had a dangerous enemy.

As the condor walked around and around the rock of refuge, eyeing him revengefully, Mr. Winship called to Mr. Millikan who was not yet out of hearing. The latter thinking his friend had flushed a covey of grouse, stopped at the cabin on his way and procured his rifle. When in sight of his friend on his granite perch he called:

"What have you got 'Lonzo?"

"Oh! I've got the great grand daddy of all birds," was the reply.

The condor was in such a fury that it paid no attention to the new comer, but continued its circuit around the boulder, eyeing its prisoner who called to Mr. Millikan, "Look out or he will go for you."

Getting a good glimpse of the bird and amazed at its size, Mr. Millikan exclaimed, "We must not kill him; we must take him alive." After considerable planning, Mr. Millikan secured a long, clean, strong, cedar pole and succeeded in dropping it across the back of their quarry, and both men threw themselves upon it. The trapped condor fought so savagely with its beak that Mr. Millikan stripped his coat off over his head and muffling the bird's head, they were finally able to secure it. Carrying the bird to the house, they took some flour sacks, cutting holes in them and passing the feet through; they then prepared splints and properly set and adjusted its broken wing, and over all, they placed bandages securely. They fastened a trace chain to one leg, securing the other end to a post. The condor had plenty of room for exercise, but woe to any object that came within reach of its bill. It knew to a fraction of an inch just how far it could reach, and, within that limit nothing escaped minus the loss of a bill full of flesh, hair or clothes.

The packers who supplied the cabin with meat, brought quantities from the slaughter house, and it would devour five pounds of meat at one meal. The owners of the slaughter house desired it, and with much difficulty the bird was again secured, taken down the mountain and turned loose in the stockade of the corral, where it was boss of all, animate or inanimate. No dog ever tried conclusions with it twice. Finally it disappeared one day and the vaqueros thought it had gone for good, but a week later, a miner prospecting on the river bank found it more dead than alive from starvation, as its wing was not yet thoroughly healed. All the bird's fight was gone, and the miner, without the slightest difficulty, conveyed it back to the stockade, where it was well fed and soon regained its old time ferocity. Finally, during the second autumn, it disappeared for good and they supposed it had gone south. Its wing measurement from tip to tip lacked one inch of eleven feet, being exactly ten feet, eleven inches.

CATHARINE MILLIKAN.

Santa Clara, Cal.

[This paper records the occurrence of the California Condor in the Sierra Nevadas in 1854, at which time the birds were doubtless not uncommon in suitable localities. None have been recorded from this region in late years.—ED.]

* * *

A Neglected Point Concerning the Picidae.

There is a matter of some importance concerning the immature plumage of the *Picidæ* that does not seem to be brought forward in the leading ornithological works of reference. As ignorance on this point is apt to be misleading to the amateur and to the collector not well acquainted with the woodpecker family, it seems strange that such a matter should be overlooked. What I refer to is the fact that in at least some members of the genus *Dryobates* and the genus *Melanerpes*, the female in its first autumn resembles the male in respect to the crimson markings upon the crown of the head.

This is especially prominent in the *Melanerpes f. bairdi* where the immature females have the crimson of the crown extending down to the white of the forehead. As the female approaches the true adult plumage the crimson on that portion of the crown which will eventually be permanently black, becomes thinner and less bright and the line of final demarcation between the black and crimson patches of the adult can be distinctly traced.

I have not had the opportunity to examine many specimens of immature *Dryobates*, but have collected enough of one or two varieties to show that this peculiarity is present, though in a much less marked degree than in the *Melanerpes* group. At what age the change to the true adult plumage occurs I do not know. Our records show that a specimen of *Dryobates nuttalli* ♀ was collected in January with a trace of the crimson still remaining, but nothing later. As the proportion of immature birds to the adults is small after they have once left the parental care, it is difficult for one collector to gather enough material to study out this matter unless he is constantly in the field. For this reason it would be of great benefit if our ornithological friends would give their experience on this subject, and I hope that some of the readers of this journal will kindly assist in bringing out the facts.

JOSEPH MAILLIARD.

San Geronimo, Cal.

(Read before the Northern Division of the C. O. Club, Jan. 6, 1900.)

* * *

MR. NATHAN M. MORAN of San Luis Obispo, a member of the Cooper Club and now attending the University of California at Berkeley, was recently honored by being elected editor-in-chief of the college paper, the *Daily Californian*. The election was warmly contested but Mr. Moran carried off the highest honors of college journalism at the State University, a distinction easily worth prizing.

CHAS. C. TRYON of Avoca, Ia. announces the publication on Jan. 15 of the initial number of the *Western Ornithologist*, a bi-monthly magazine of ornithology. Mr. Tryon states that the new magazine is but a continuation of the *Iowa Ornithologist* in an enlarged form, and that Mr. David L. Savage will act as associate editor of the new publication.

MR. JOHN W. MARTIN of Palestine, Ore., well known as the publisher of the *Oregon Naturalist*, will join the ranks of Californian ornithologists during the present year. Mr. Martin recently met with a sad affliction in the death of his mother, and has since arranged to remove to California.

Avifauna of a 100-Acre Ranch.

BY H. S. SWARTH, LOS ANGELES.

[Read before the Southern Division of the Cooper Orn. Club.]

The following notes were taken in a territory of about one hundred acres, situated in the north-western part of the city of Los Angeles, Cal., about a mile north-west of Westlake Park. Included in this land is a pond of about an acre in extent, which adds materially to the number of species recorded. The observations extend over a period of about seven years.

1 Pied-billed Grebe. *Podilymbus podiceps.* Resident throughout the year, but most common during the fall and winter. In the spring of 1895 a pair built a nest and laid their set, but the water rose and forced them to desert. In the spring of 1896 a pair laid their set and raised their brood successfully.

2 Western Gull. *Larus occidentalis.*

3 American Herring Gull. *Larus argentatus smithsonianus.* In the winter these two species are often seen flying over; they light occasionally but not often.

4 Farallone Cormorant. *Phalacrocorax dilophus albociliatus.* Have occasionally lit in the pond, but as there are no fish in it, they never remain long.

5 Red-breasted Merganser. *Merganser serrator.* On Dec. 27, 1894, I shot a female of this species out of a flock of seven. On several other occasions I have seen single birds which I did not secure and which may have been either of the two other species of Merganser.

6 Mallard. *Anas boschas.*

7 Baldpate. *Anas americana.*

8 Green-winged Teal. *Anas carolinensis.* These species drop in occasionally at any time between the first of October and the end of March.

9 Blue-winged Teal. *Anas discors.* Mr. W. B. Judson shot a female on Oct. 31, 1896, but did not save it as a specimen. On Oct. 3, 1898, I secured one, also a female, which I now have in my collection.

10 Cinnamon Teal. *Anas cyanoptera.* This species is seen more often than almost any of the others, and would undoubtedly breed if they were not disturbed. In the spring of 1896 a pair remained until very late and in all probability had part of their set laid, but as they were very tame they were shot by some wandering sportsman, so-called. In the spring of 1898 a pair remained and laid part of their set, but the nest was found and the eggs taken by some small boys. The birds then left. Cinnamon Teal occasionally drop in in July and August.

11 Shoveller. *Spatula clypeata.*

12 Pintail. *Dafila acuta.*

13 Redhead. *Aythya americana.*

14 Canvasback. *Aythya vallisneria.*

15 Lesser Scaup Duck. *Aythya affinis.* These species are occasionally seen any time between the first of October and the end of March.

16 Ring-necked Duck. *Aythya collaris.* On October 15 I saw a flock of one male and three females, all of which I secured. I have seen two or three others, single birds, but they do not drop in often.

17 Golden-eye. *Glaucionetta clangula americana.* I have several times seen single birds, but never managed to shoot any.

18 Buffle-head. *Charitonetta albeola.* Seen occasionally.

19 Ruddy Duck. *Erismatura rubida.* The Ruddy Ducks arrive earlier and stay later than any of the others, excepting the Cinnamon Teal. They become very tame if not molested and sometimes stay for weeks at a time. One year a flock of about a dozen remained nearly all winter.

20 American White-fronted Goose. *Anser albifrons gambeli.* On Feb. 3, 1897, I flushed a White-fronted Goose out of some weeds at the edge of the lake. I was within fifty feet of it before I saw it, but had no means of shooting it.

21 Fulvous Tree Duck. *Dendrocygna fulva.* On April 18, 1898, I saw a pair of this species. They were not very wild and I secured them both with very little trouble.

22 AMERICAN BITTERN. *Botaurus lentiginosus.* A regular and rather common migrant. Occasionally seen during the winter.

23 LEAST BITTERN. *Botaurus exilis.* On July 5, 1897, I flushed two Least Bitterns out of some tules. They probably bred in the vicinity, although I had not seen them before.

24 AMERICAN EGRET. *Ardea egretta.* A very rare migrant. I have only seen them twice in the vicinity.

25 ANTHONY'S GREEN HERON. *Ardea virescens anthonyi.* A common migrant, but rather more numerous in the fall than in the spring.

26 BLACK-CROWNED NIGHT HERON. *Nycticorax nycticorax nævius.* A common migrant, and to some extent a resident. On April 14, 1897, I counted nineteen in sight at once on the shores of the lake, and there were many more in a grove of eucalyptus trees close by. Usually they do not pass through here in any such large flocks. Almost every year a few remain through the summer and undoubtedly do not breed.

27 GREAT BLUE HERON. *Ardea herodias.* A common migrant and winter resident, though usually not more than one is seen at a time.

28 VIRGINIA RAIL. *Rallus virginianus.* A very common resident. I have never found a nest in the vicinity, but as I have seen the birds during every month of the year, they undoubtedly breed. Seen usually in the grass and reeds along the shallow creeks.

29 SORA RAIL. *Porzana carolina.* A common resident, though not as abundant as the former. They stay usually around the lake and are seldom seen along the creeks, where the Virginia Rail is found. Probably breeds, as they can be seen at any time during the year.

30 FLORIDA GALLINULE. *Gallinula galeata.* A pair or two nest in the tules around the pond every year. The young remain until late in the fall, when they nearly all disappear. Usually one or two remain through the winter.

31 AMERICAN COOT. *Fulica americana.* A common winter, and more rarely, a summer resident. During the winter, there are always from 10 to 20 Coots in the lake, and sometimes 80 to 100 or more. They nearly all disappear in the spring, but usually three or four remain to breed.

32 NORTHERN PHALAROPE. *Phalaropus lobatus.* A fall migrant, but very irregular. Some years a dozen or more may be seen during the migration and on others, not any. I have never seen any here in the spring.

33 AMERICAN AVOCET. *Recurvirostra americana.* On Oct. 4, 1896, I saw the only avocet that I have ever seen in the vicinity.

34 BLACK-NECKED STILT. *Himantopus mexicanus.* A regular and rather common spring migrant, appearing about the middle of April, sometimes in flocks, and sometimes singly.

35 WILSON'S SNIPE. *Gallinago delicata.* A regular spring and fall migrant and occasionally seen during the winter. They are usually more common in the fall than in the spring.

36 LEAST SANDPIPER. *Tringa minutilla.*

37 WESTERN SANDPIPER. *Ereunetes occidentalis.* Migrant, but never very numerous, and of very irregular occurrence.

38 GREATER YELLOWLEGS. *Totanus melanoleucus.* A regular but not common migrant.

39 WESTERN SOLITARY SANDPIPER. *Totanus solitarius cinnamomeus.* A regular and rather common migrant, more common in the fall than in the spring, as in fact all the waders are.

40 WESTERN WILLET. *Symphemia semipalmata inornata.* On one occasion a single bird was seen.

41 SPOTTED SANDPIPER. *Actitus macularia.* A rather common migrant, generally at the same time and in the same numbers as the Solitary Sandpiper.

42 KILLDEER. *Ægialitis vocifera.* Quite common almost every month in the year. A pair or two usually breed in the vicinity.

43 VALLEY PARTRIDGE. *Callipepla californica vallicola.* Once or twice Valley Partridges have strayed down as far as this from the foothills, but it is of rare occurence as there is no cover for them.

44 GAMBEL'S PARTRIDGE. *Callipepla gambeli.* On Sept. 16, 1896, I shot an adult male of this species. Whether it was an escaped cage bird or not, I cannot say, but I know of no place in the vicinity whence it could have escaped.

45 BAND-TAILED PIGEON. *Columba fasciata.* On Nov. 2, 1896, I shot an immature Band-tailed Pigeon with yellow down still attached to the feathers on the head and neck.

46 MOURNING DOVE. *Zenaidura macroura.* A resident, common during the breeding season, but quite rare through the winter.

47 TURKEY VULTURE. *Cathartes aura.* Can be seen circling overhead almost any time, but seldom alights unless there is some special attraction.

48 WHITE-TAILED KITE. *Elanus leucurus.* An irregular migrant, generally seen in the fall but never at all numerous.

49 MARSH HAWK. *Circus hudsonius.* A common migrant, occasionally seen in the winter.

50 SHARP-SHINNED HAWK. *Accipiter velox.* Common in the fall migration and through the winter; more rare in the spring.

51 COOPER'S HAWK. *Accipiter cooperi.* A regular migrant, most common in the fall.

52 WESTERN REDTAIL. *Buteo borealis calurus.* A fairly common migrant, often seen in the winter.

53 RED-BELLIED HAWK. *Buteo lineatus elegans.* Of very rare occurence.

54 SWAINSON'S HAWK. *Buteo swainsoni.* A regular and rather common fall migrant. I have never seen any but the dark plumaged birds.

55 FERRUGINOUS ROUGHLEG. *Archibuteo ferrugineus.* A rare migrant. All the hawks are much more common in the fall than in the spring. While usually only single birds are seen, during the fall migration, I have sometimes seen quite large flocks of different species of hawks migrating together. On Oct. 16, 1897, I counted over a dozen hawks in a flock directly over me, while there were as many more in sight further away. The majority were Swainson's, but I could also distinguish Redtails and Ferruginous Roughlegs, besides others that I could not identify.

56 GOLDEN EAGLE. *Aquila chrysætos.* Frequently seen flying over during the fall and winter, but I have only known one to alight in this vicinity.

57 PRAIRIE FALCON. *Falco mexicanus.*

58 DUCK HAWK. *Falco peregrinus anatum.* Both of these species are often seen during the migrations and through the winter.

59 PIGEON HAWK. *Falco columbaris.* Seen occasionally in the fall and winter.

60 DESERT SPARROW HAWK. *Falco sparverius deserticolus.* A migrant and winter resident, but while quite common during some winters, in others it is hardly seen at all.

61 AMERICAN BARN OWL. *Strix pratincola.* There are some Barn Owls in the vicinity nearly all through the year. One year a pair laid their set in an opening in the roof of the house. As the set was taken, they went to the house next door where they raised their brood successfully.

62 CALIFORNIA SCREECH OWL. *Megascops asio bendirei.* Of very rare occurrence.

63 PACIFIC HORNED OWL. *Bubo virginianus pacificus.* On Oct. 2, 1898, Mr. G. F. Morcom shot a female. I have seen one or two others.

64 BURROWING OWL. *Speotyto cunicularia hypogæ.* Several pairs of Burrowing Owls breed in the fields in the vicinity, but they can hardly be called common.

65 CALIFORNIA CUCKOO. *Coccyzus americanus occidentalis.* A very rare migrant. I have not seen more than three or four in as many years.

Concluded in next issue.

Echoes from the Field.

Notes from Alameda, Cal. Townsend's Warbler has been seen by me but once here, in winter.

Oct. 26.—Audubon's Warbler has not occurred commonly this fall. Five birds in a flock were noted near San Lorenzo, Alameda Co., on Sept. 21. Very few noted here this fall and rarely seen in spring migrations in the high plumage.

Noted a Yellow Warbler, Oct. 25.

Very few pairs of Lutescent Warbler; a few years ago a tolerably common breeder. Are annually noted in many of the primeval copes about town, and I doubt if any now remain through their nesting period.

In Contra Costa Co., March, 1899, took a nest and set of Hutton's Vireo in a scrub oak heavily draped with moss, which was also the principal composition of the nest. The notes of one of the birds caused me to stop my team and it took but a few seconds to detect the nest, on a side hill a few yards off the road. The horizontal limb, near the end of which hung the nest, was too light for my weight, so it had to be hacked off with a hatchet, no saw being handy. During the performance the limb tipped considerably, but the incubating bird remained on the nest until I began to haul in the limb. This trait is common with the Warbling Vireo and occasionally with Anna's Hummingbird, the Rufous and the Allen's being very wild in proportion.

Oct. 13. Heard what seemed to be a Western Meadow Lark twittering, and it also sounded like the Olive-sided Flycatcher. Upon approaching an apple tree I detected a California Shrike singing. The notes were low and very sweet and sung several times. At my advance from my position of observation, the Shrike uttered its characteristic, harsh cry and flew, being immediately pursued and attacked by a hummingbird, which appeared to cause little if any annoyance, across a field to a tree 100 yards distant. The hummingbird diverted its course as the shrike was about to alight.

Noted two Tree Swallows skimming over a meadow about Jan. 1. Having seen occasional birds in winter and a large bunch at Niles in January, 1898. Would indicate this swallow to winter in limited numbers in the county.

The migration of Louisiana Tanagers was very light this spring. In the fall they are a scarcer migrant, a few seen almost annually, in sombre plumage.

An instance of three nests of four eggs each of Lazuli Bunting, all situated in bushes on the high bank of a creek in the foothills, all about three and a half feet from the ground and within a few yards of each other, were reported by an acquaintance last spring. Each nest held some pipped eggs.

The following curious nesting is reported by the same party:—a set of Plain Titmouse and Ash-throated Flycatcher were taken at successive intervals in 1896 from one hollow, ten feet up in a live-oak on a side-hill. The site was not visited in 1897. The remarks for 1896 apply to 1898. In 1899 the Plain Titmouse was robbed of a set of six eggs on April 15, in a hollow near by. On May 1 and 19, two of her sets were taken from the original hollow which contained a set of Red-shafted Flicker on June 8. On the same date, in a flicker's excavation, five feet from the gorund in a dead oak stump ten feet high, standing on a side hill, a California Screech Owl was incubating one of her own and one Red-shafted Flicker's egg. A visit to the nest one week later disclosed the same state of affairs.

On April 29, I discovered a nest almost completed of Black-headed Grosbeak in an apple tree from which I took four fresh eggs on May 9. I made written memoranda of the number of the tree and the row in the orchard and on July 17 was surprised to find a nest and three eggs in the same crotch and am inclined to believe it was the third nest of the two pairs that bred in the orchard.

D. A. Cohen, Alameda, Cal.

Odd Nesting Sites of Samuel's Song Sparrow. On the 29th of April, 1898, I found a nest of this species built in the side of a large bunch of driftwood and leaves, lodged in the forks of a willow tree, twelve feet above the ground, on the banks of a stream. The eggs, three in number, were laid in a depression, which was slightly lined with straw and hair, in the side of the mass of driftwood, and were far advanced in incubation. This nest was discovered by seeing the bird leave. Just a year later, upon the 29th of April, 1899, I secured a set of four fresh eggs from a nest which was built in an old nest of the Black-headed Grosbeak from which a set of eggs was taken in 1898. The nest was in a fork near the top of a small willow tree, ten feet from the ground, in a thick growth of small willows near a stream. It was placed in a Grosbeak's nest, and was compactly built of straw, leaves and grasses, lined with fine grass and horsehair. When we consider that this sparrow usually nests in blackberry thickets and thick underbrush three or four feet above the ground, it will be readily seen that the above recorded nests were in rather unusual places.

Queer Antics of a Western Redtail. While cultivating in my orchard one warm morning last spring, I was watching a Western Red-tailed Hawk that was passing over. It was flying high, in a north-easterly direction, and flying fast, as if returning to its nest, when suddenly it tumbled over and over in the manner of a tumbler pigeon, directly downward for a distance of about forty feet, then spread its wings and resumed flight. I thought for an instant that some one had shot it, but hearing no report and seeing the hawk continue its journey, I concluded that the bird had, in all probability, been attacked by some small bird or insect and had adapted this manner of eluding it. WM. L. ATKINSON, Santa Clara, Cal.

Discoloration of Plumage in Certain Birds. It may be worth while to notice the fact that many birds taken near cities have the plumage greatly discolored. Whether this is due to smoke, ashes, coal dust, or charcoal of burnt stubs I am unable to say. From their appearance it might be any of these agencies. About Denver it may be due to the smelter smoke. As to a certain *Otocoris*, sent to Dr. Jonathan Dwight, Jr., he said: "and 1077 [*arenicola*] is of course soiled with coal dust or some such thing, perhaps from feeding on ash heaps." Near Denver the birds which show the greatest amount of dirt on their plumage are the house finches. Every feather is greatly darkened by the extraneous substance and the red areas are so toned down as to be inconspicuous. In regard to this species I believe Mr. Ridgway has suggested that the birds feed in burnt timber. In the vicinity of Denver, at least, it is rather doubtful if this be the case.

In the same locality *Anthus*, *Lanius*, *Junco* and *Ammodramus* have also been taken with soiled plumages. Coming now to California, we find a smoky plumage in *Ammodramus*, *Thryomanes*, *Anthus* and *Zonotrichia*, all taken in the vicinity of San Francisco. Mr. Slevin, to whom I spoke of the matter, said that *Colaptes* hung around the roofs of buildings in Alameda and probably got dirty from sliding on the shingles, a theory which seems quite probable. In his collection he showed me specimens of *Colaptes*, *Accipiter* and *Regulus*, from Alameda, and a *Dryobates* from Aiken, S. C., all very much soiled.

RICHARD C. McGREGOR, Palo Alto, Cal.

Brewer's Blackbird Nesting in Cavities. On April 21, 1895, while at Sargents, Cal., a peculiar nesting site of Brewer's Blackbird was noted. A colony of these birds were inhabiting a small live oak grove on a hill. I was surprised to find one nest built in a small cavity on the under side of a rotten oak limb, about ten feet from the ground. The nest was composed largely of Spanish moss and lined with horse hair. It contained two fresh eggs. The cavity was one such as is generally selected by a Sparrow Hawk in which to build. C. BARLOW, Santa Clara, Cal.

Sierran Crossbill in El Dorado Co., Cal. At Fyffe, El Dorado Co., on June 8, 1899, Mr. Carriger and I noted a bird on the low limbs of a pine near the house, which at first glance we took to be a male Cassin's Finch. Upon shooting it, the specimen resolved itself into a Sierran Crossbill (*Loxia curvirostra bendirei*, ♂) in rich plumage. The testes were undeveloped and the bird showed no signs of breeding. This was at an altitude of 3,700 feet, in the forests of yellow pine, For two days after this I saw at different times, flocks of crossbills in the tops of the pines and firs, moving along rapidly and doubtless feeding upon the buds of these trees, but secured no other specimens. They were probably moving up into the high Sierras, although up to this time their migration must have been strictly a northern one, as none were seen or reported west of Fyffe, showing it was then entirely too late for them to be migrating up from the valleys.

C. BARLOW, Santa Clara. Cal.

Occurrence of the American Scaup Duck in Los Angeles Co., Cal. In a bunch of ducks sent me by ex-Governor Markham and shot by him at Bixby, Cal., Dec. 20, 1899, I find a male American Scaup Duck (*Aythya marila nearctica*). This is a new record for Los Angeles Co., and an addition to Mr. Grinnell's list.

F. S. DAGGETT, Pasadena, Cal.

Early Nesting of the Pasadena Thrasher. On the 15th of last month, (December '99,) Dr. Fenyes and myself, while hunting over a brush-covered wash near Azusa, were surprised to find a nest of this species (*Harporhynchus redivivus pasadenensis*). It was in no ways peculiar, except as to the date, being built two and one-half feet above the ground in a black-sage bush. One of the birds was sitting closely and the other singing from its perch at the top of a bush not far off. The nest contained three eggs in which incubation was well begun. The thrashers are always in full song soon after their single annual moult which occurs in August, but they do not ordinarily breed before March and April, though we have one county record for January 27.* JOSEPH GRINNELL, Pasadena, Cal.

An Unusually High Nest of Audubon's Hermit Thrush. Mr. Belding's note in the March-April BULLETIN for 1899, on the nesting of the Audubon's Hermit Thrush (*Turdus aonalaschkæ auduboni*) in the Sierra Nevadas, brings to mind the only set of eggs of this bird I have seen. We were near the summit of the Sierras on the 6th of June, 1896, and while looking around in a grove of trees, I noticed a nest well out on a pine limb, thirty feet from the ground. On climbing the tree, the bird was seen upon the nest and flew off when closely approached. The nest is strongly built of twigs and bright yellow moss (*Evernia vulpina*), with a layer of fine dry leaves, within which is a heavy lining of fine grass stems. The nest contained four fresh eggs. The height from the ground seems unusual as compared with other records, but it was perhaps to get the benefit of the morning sun, as patches of snow lay all around and the nights were quite chilly. Several birds were heard or seen between 7,000 and 8,000 feet in El Dorado Co., and several heard singing in the Merced grove of Big Trees a couple of weeks later.

R. H. BECK, Berryessa, Cal., Dec. 20, 1899.

Notes from Haywards, Cal. In some notes published in the *Nidologist*, Mr. D. A. Cohen of Alameda mentions that the Hermit Warbler (*D. occidentalis*) was reported seen in 1885 at Berkeley. My records extend back to March 4, 1880, when two males were shot in live oaks on the north hillside at Haywards. I find among my records the taking of a Black-throated Gray Warbler (*D. nigrescens*) on Oct. 14, 1882, and another seen on May 11, 1883. I also have a male Myrtle Warbler (*D. coronata*) taken April 13, 1881, the only specimen ever noted here.

I shot a male and noted two other Red-breasted Nuthatches on Oct. 14, 1882, the only time I observed them. A California Creeper (*C. familiaris occidentalis*) was observed in the live oaks on Feb. 2, 1890, being rather out of its range as it is restricted to the redwood and pine regions. On Dec. 8, 1885, a cold, wet, windy day, I noticed several Californian Chickadees (*Parus rufescens neglectus*) feeding among the cypress trees, which is the only time they were seen. They were no doubt common years ago, before the disappearance of the redwoods from the hillsides and canons. A female was taken at Dry Creek Aug. 1, 1896, and the species may breed on this side of the bay shore.

W. OTTO EMERSON, Haywards, Cal.

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*Birds of the Pacific Slope of Los Angeles county.

Communications.

AGAINST THE GENERAL USE OF SCIENTIFIC NAMES.

Mr. McGregor's "Plea for the General Use of Scientific Names" as set forth in our last BULLETIN, is, to my mind, illogical, and moreover expresses a sentiment which I am sure is far from prevalent among bird people. Let me say to start with, that I *do* recognize the necessity of scientific names, and for some of the very reasons Mr. McGregor gives. But I do not favor their general use in literature, either semi-popular or scientific, to the exclusion of vernacular names. To the "average person," take for example the Cooper Club membership, *Ardea virescens* may very obviously mean as much as Green Heron, and *Corvus americanus* as much as American Crow; but how about *Tachycineta thalassina*, *Helminthophila celata sordida* and *Hesperocichla nævia*, the common names of which are respectively, Violet-green Swallow, Dusky Warbler and Varied Thrush? Most of our intellects are far more capable of grasping and retaining a simple English name, as a great majority of our trivial names are, than the often complex and misapplied terms of Latin and Greek origin, with which languages we are not as familiar as are Mr. McGregor, Dr. Coues, Mr. D. G. Elliott and other philologists.

Mr. McGregor makes a statement which I very much doubt when he says "it is impossible to find enough common names to supply all the species of birds," even taking into consideration the avifauna of the whole world. Ornithology is a more popular study than that of many of the other animal classes. In fact, in entomology and palæontology, scarcely any one but specialists are interested, and vernacular names are not needed except for the most familiar and wide-spread species. Hence I do not deem it inconsistent if birds are supplied with vernacular names,' and certain other groups less familiarly known to the general public, are not.

In the cases of many North American birds, there are several scientific synonyms. That is no reason why one of them, complying with certain well-known laws of preference, should not be selected as being the only recognized and tenable name. Correspondingly, among the numerous synonymical vernacular names of many of our common species is it not possible to select one, the best on account of appropriateness and most extended use, and recognize that one name as the only tenable one? This the A. O. U. Committee on Classification and Nomenclature has so far done. I know of but this one set of vernacular names for use in connection with our North American birds, the ones which this Committee have selected, just as with the scientific names. I would refer Mr. McGregor to Recommendation X of the A. O. U. Code of Nomenclature.

It is true that there are numerous trivial names on the A. O. U. Checklist now, which are taken directly from the Latin generic names, or are of barbarous origin. But these are mostly appropriate and of long standing so that they are now in familiar use. Similarly, there are many poor scientific names, barbarities, some of them mere combinations of letters with no meaning whatever. But according to the righteous law of priority they can never be changed. Appropriate English names when once adopted, should likewise become fixed and permanent.

I do not feel as Mr. McGregor does: I much prefer to see the vernacular name of a bird used in ordinary literature, rather than the Latin name. Supposing in the last BULLETIN, instead of our familiar bird names as used in J. M. W.'s delightful essay, the scientific names were in every case substituted! Instead of Meadowlark, *Sturnella;* Towhee, *Pipilo;* Lark Sparrow, *Chondestes;* Barn Swallow, *Hirundo*; Jay, *Cyanocitta;* etc. Would it have added to the value or accuracy of those poetical descriptions? The description of a woodland scene may be as scientific and accurate as the comparative measurements of the primaries of a warbler's wing. In either case where reference is made to a certain bird, shall we say *Dendroica* or Warbler? Which conveys the keenest idea of the bird in question to the "average person"? By the way, there are far more "half-scientists who find pleasure in knowing something of the relationship of animals," than specialists; and the more exclusive in their technical terms do the specialists become, the less can the average person understand of their work and writings.

I see no reason why it is not proper to give both the scientific and common names in faunal lists. If a person is more familiar with the vernacular names, he is better and sooner able to understand what species are recorded, than if only the scientific names are given. Mr. McGregor is the first person I ever heard of who is bothered by the vernacular names. I think it is the rule that "the average person" learns the common names of birds first, and then gradually acquires the scientific names.

If we should adopt the exclusive use of scientific names in our lists and semi-popular ornithological journals, a large class of readers would be greatly inconvenienced, and I see nothing to be gained. Uniformity and permanence are just as possible with common as with scientific names, and, in the study of ornithology, we *need both*.

JOSEPH GRINNELL.

Pasadena, Cal.

* * *

Book Reviews.

NEWTON'S DICTIONARY OF BIRDS. By Prof. Alfred Newton; pp. 1088; profusely illustrated; 1 map, New York, Macmillan Co. $5.

This superb work on ornithology which was originally published in four parts, the last of which was completed in 1896, is now offered the public in one unabridged volume, at a moderate price, and every working ornithologist must hail the advent of such an edition with pleasure. To Club members who have not seen this admirable work it is well to state that it is everything and more than its name implies,—an encyclopædia of ornithological terms and facts, both common and technical, and a work which the novice or scientist may alike peruse with interest and to advantage. Any ornithologist will find within its pages much to interest and instruct in spare moments, for it is most readable aside from its value as a reference work, and for the latter use, it leaves nothing to be desired.

Thus, as a "dictionary" of ornithological topics, the present volume easily takes front rank in the available ornithological literature of to-day. The volume is a reprint of the four previously issued parts, all of which is preceded by a most valuable introduction (pp. 1-120), which constitutes an interesting history of ornithology from the first published writings of Aristotle (385-322 B. C.) to the present day. To the ornithologist who studies his science for the simple love of it, how interesting it is to follow its progress from the time of its inception as a science, down through the ages! To those who are so interested we recommend the "Dictionary." The work is compiled with the topics alphabetically arranged, which is doubtless the most acceptable form for working ornithologists who appreciate a ready reference work. In the "Dictionary" are treated bird species and kindred subjects, such as geographical distribution, migration, moult, muscular system, nidification, vascular system, etc., *ad infinitum*. The various portions of bird anatomy are also treated in their respective places and seemingly every subject which might present itself to the naturalist is perfectly handled, leaving nothing to be desired. In the preface the author states "It has been my object throughout to compress into the smallest compass the information intended to be conveyed," and to the fact that this has been observed, is largely due the excellence of the entire work.—C. B.

* * *

THE A. O. U. MEETING.

The Seventeenth Congress of the A. O. U. held at the Academy of Natural Sciences, Philadelphia, Nov. 13-16, was notable for several reasons. It was the first time in the history of the Union that a meeting has been held elsewhere than in New York, Washington or Cambridge, while the total attendance of members, as well as the number of papers presented, was greater than ever before.

The most noteworthy features of the programme were the numerous papers dealing with the question of moult and feather structure, and the wonderful excellence of modern bird photography as shown by lantern slides. Dr. Roberts' series of pictures of Franklin's Gull on its nesting grounds has probably never been surpassed. Every phase of the life of the bird was shown, and the parent was actually photographed while dropping an escaped young bird back into the nest!

Besides the regular programme, the members attended the meeting of the Academy on Tuesday evening and Mr. F. M. Chapman made a communication on the "Bird Rocks of the Gulf of St. Lawrence." On Friday a number of members visited "Mill Grove," the former home of Audubon, where they were entertained by Mr. Wetherill, the present owner.

* * *

The Annual Meetings of both divisions of the Cooper Club, held respectively in Pasadena and Santa Clara, were by far the most successful and enthusiastic sessions held by either division in recent years. This shows which way the wind is blowing in California, and this amalgamation of kindred spirits is a most happy thing to contemplate.

THE CONDOR.
Bulletin of the
COOPER ORNITHOLOGICAL CLUB
OF CALIFORNIA.

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This issue of the Bulletin was mailed Jan. 16.

EDITORIAL NOTES.

The index to Volume I, mailed with this issue, is the work of Mr. Richard C. McGregor, to whom the editors return thanks for this and other valuable assistance rendered during the year.

Mr. Swarth's list which records 175 species and subspecies of birds within the confines of a 100-acre ranch in the city of Los Angeles, is an illustration of the extended list and interesting facts which systematic and careful observation will accomplish, and we venture to say that few observers in the Club can show as complete a list for a like area.

Volume I of the BULLETIN can be supplied while the back numbers are in print, at $1. per volume. The 120 pages of text embraced in the volume, contain new bird descriptions, valuable observations on the nests and eggs of numerous little-known species, besides a mass of popular material and biographies, which make the volume especially desirable for future reference.

The Club library has recently added Turner's "Contributions to the Natural History of Alaska" and Nelson's "Report upon Natural History Collections Made in Alaska," with the excellence of which volumes, ornithologists generally, are acquainted. Both volumes are donated by Mr. Lyman Belding of Stockton, who has on previous occasions shown his generosity and good-will toward the Cooper Club.

ERRATUM:—In our last issue in reviewing the collection of Miss Jean Bell, reference was made to the purchase of "over one thousand selected sets from the collection of Mr. Thos. H. Jackson." This statement was a regrettable error, as Mr. Jackson has never offered for sale his collection nor any part of it. The sets mentioned were from the collection of Mr. S. B. Ladd. We regret the injustice done Mr. Jackson and take pleasure in making this correction.

As an illustration of the knowledge accruing from proper collecting in the field, we might call attention to the communication of Mr. Jos. Mailliard in this issue on the color changes in the crown of certain of the *Picidæ*, a point which it appears has heretofore been overlooked. This demonstrates the necessity of collecting in series at proper seasons, and it would seem that all unbiased ornithologists must concede that the results amply justify such collecting.

In preparing the completed volumes of various ornithological journals for binding, one cannot but notice a grievous fault in the matter of allowing advertising pages to become so mixed with the text that they cannot be eliminated in binding. This is, at best, unsightly, and after removing the covers and superfluous advertising pages, we too often find the back of the last sheet devoted to advertising which cannot be done away with because the reverse side is given to text. We notice this fault even in that model of typographical propriety,—*Bird-Lore*. If advertising pages must be inserted, they should be so printed that the half-sheet containing them can be torn off, leaving the corresponding pages of text to be bound, thus causing no interruption of the consecutiveness of the pages in the bound volume. Is it not well for our publishers to keep this matter, trifling as it may appear, in mind?

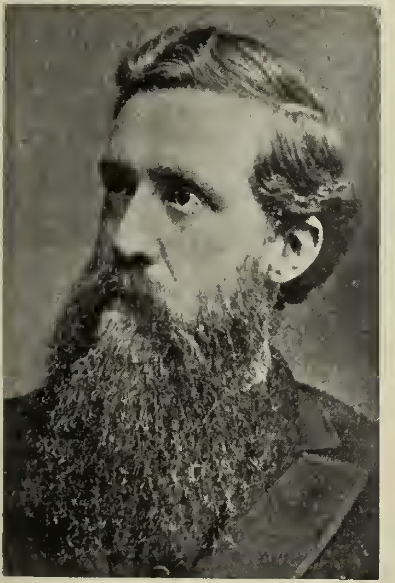
Amid many graceful compliments, the CONDOR, with earnest stroke, launches itself upon its second volume, feeling that its range has been wisely proven sufficient for its support. The magazine will be but the BULLETIN of 1899 under its new and briefer and more distinct title, and it expects to gain support wholly through its course of presenting the most attractive and valuable articles on ornithology to the fraternity. Every publisher must have discovered that it is next to impossible to thrust upon the public something it does not want, and the CONDOR has therefore relied solely upon its merit for support, and this, we may modestly add, has not been slow in forthcoming. A second volume of promptly issued numbers, filled with articles of merit and interest, is therefore assured. The new cover adorning this issue is the work of Mr. W. Otto Emerson, the Cooper Club artist, whose talent has frequently been displayed for the Club's benefit.

Subscribers are requested to remit their *renewals* direct to the CONDOR, as no discount is allowed agents for renewals and this course, therefore, becomes the most direct one.

Dr. Elliott Coues.

Baltimore, Dec. 26.—Professor Elliott Coues of Washington, the world-famed ornithologist and scientist, died last night at Johns Hopkins Hospital.

Such were the tidings that caused the profoundest sorrow in ornithological and scientific circles, and which marks the passing of one of the ablest and most brilliant scientific writers of the nineteenth century. Few who have followed the writings of Dr. Coues could fail to be impressed with his forceful style, even though they might at times differ from his expressed opinions.



His pen was seldom swayed by the opinions of others, and from it alike could flow the most caustic criticism or the warmest encomium, and he was seldom found without pronounced views on a subject, either favorable or antagonistic. In some of the discussions into which he has entered during his career, are found examples of his keenest satire and, perhaps, his finest rhetorical effects, and he had been regarded by some as without a peer in this respect.

Dr. Coues was best known to ornithologists through his excellent "Key to North American Birds," his "Birds of the Northwest," and publications of lesser value. He had served as president of the American Ornithologists' Union and was a member of its Executive Council at the time of his death. He acted also as an associate editor of the Century Dictionary. His able editorship of the *Osprey* is familiar to all, and his premature and sudden withdrawal from an active life causes the seemingly irreparable loss of a brilliant personage.

Dr. Elliott Coues was born in New Hampshire in 1842. He graduated from the Columbian University of Washington and entered the Army in 1862 as a medical cadet, leaving it later as a surgeon. He was a specialist in ornithology, anatomy and geology, and had at different times been connected with the Smithsonian Institution and the Geological Survey. Since his retirement from the *Osprey* he had been engaged in geological work in New Mexico for the Government, but returned to Washington in poor health, due perhaps to overwork. The news of his demise came suddenly, however, to the large army of scientists who have long and favorably known him.

Others more familiar with his life will write the biography of Dr. Coues, but the ornithologists of the West tender to his memory the tribute due a friend, a masterful scholar and peerless ornithologist.—C. B.

Mr. W. Otto Emerson delivered an illustrated talk before the California Fruit Growers' Convention at San Jose, on Dec. 15. His subject, "Birds Beneficial and Injurious to the Orchardist," was finely illustrated with drawings and skins.

The Section of Ornithology of the California Academy of Sciences held its Annual Meeting at the Academy on Tuesday evening, Dec. 5. The meeting was preceded by an informal banquet at which members participated. The Section has prospered materially during the year past, and much credit is due Prof. Leverett M. Loomis, Curator in the Department of Ornithology, for his active efforts in behalf of the organization.

Official Minutes of Northern Division.

JANUARY.

The Annual Meeting was held at the home of C. Barlow in Santa Clara, Cal., Jan. 6, with an attendance of sixteen. The following papers were read: "Casual Observations on a Colony of Black-crowned Night Herons," by D. A. Cohen; "Woodpeckers of the Upper Salinas Valley," by Chas. S. Thompson; "Nesting of the California Clapper Rail," by Ernest Adams; "A Neglected Point Concerning the *Picidæ*," by Jos. Mailliard; "A History of My Life, by *Chondestes grammacus strigatus*," by W. L. Atkinson. A paper on the "Summer Home of the Varied Thrush," by Jos. Grinnell of the Southern Division was read.

Mr. Cohen gave the annual report of the treasurer. The election of officers for 1900 resulted as follows: President, W. Otto Emerson: Vice President, Theodore J. Hoover; Secretary, C. Barlow; Treasurer, Donald A. Cohen. The president appointed the incumbent editorial force for 1900, as follows: Editor-in-Chief, C. Barlow; Associate, H. R. Taylor; Business Manager, D. A. Cohen. A Publication Committee for the publication of memoirs was appointed as follows for the Northern Division: Theodore J. Hoover, Richard C. McGregor, Jos. Mailliard, W. O. Emerson and C. Barlow.

Chas. S. Thompson of Stanford University, Chas. A. Nace of Santa Clara, E. H. Skinner of San Jose and Lloyd T. Stephenson of Vinton were proposed for active membership. A resolution of thanks to Mr. Lyman Belding for the donation of two volumes of Alaskan Ornithology to the Club, was passed. A bill of $4.10 for postage was allowed the secretary. The meeting repaired to the dining room, where, between courses, the annual address was delivered by the president, Mr. Emerson. The Division meets March 3 at the home of W. Otto Emerson at Haywards.

C. BARLOW, Secretary.

Official Minutes of Southern Division.

NOVEMBER.

Southern Division met on Nov. 29, 1899, at the residence of Mr. F. S. Daggett in Pasadena. President McCormick presided. Twelve members were present. Messrs. G. E. Little, Dr. Coffin, F. Grinnell and W. Moody were present as visitors. Mr. Roth Reynolds of Los Angeles was elected to membership. Mr. Grinnell proposed the names of G. E. Little and Dr. Coffin of Whittier for membership. In the matter of a Publication Committee, as proposed by the Northern Division, it was decided to elect three members to serve on such committee. Messrs. Grinnell, Daggett and Robertson were nominated. For the nomination of officers for the ensuing year, on motion of Mr. Grinnell, it was decided to re-nominate the old board of officers which stands,—For President, A. I. McCormick; Vice President, F. S. Daggett; Secretary, Howard Robertson; Treasurer, H. S. Swarth; Business Manager, A. I. McCormick; Associate Editor, Howard Robertson.

It was arranged to hold the annual banquet on Dec. 28. Mr. Daggett very kindly offered his residence as a meeting place, which was accepted with thanks. Mr. Grinnell gave two papers,—an answer to Mr. McGregor's "Plea for the General Use of Scientific Names," and "The Varied Thrush in Summer." He exhibited eight skins of the Varied Thrush, six adults and two juveniles, three nests and a series of forty-four eggs of same species. He also exhibited specimens of Rock and Willow Ptarmigan in both winter and summer plumages, and skins of Golden Plover and Canada Grouse. Dr. Coffin, who was a member of the same party as Mr. Grinnell, related several anecdotes of the trip. The receipt of a paper from the Northern Division was acknowledged but was not read for want of time.

DECEMBER.

The Annual Meeting of the Southern Division was held Dec. 28, 1899, at the residence of Mr. F. S. Daggett, Pasadena. There were sixteen members present. Messrs. Little, Coffin and Connant were present as visitors. Dr. G. V. Coffin and G. E. Little were elected to membership. Officers for ensuing year were elected as follows: A. I. McCormick, President; F. S. Daggett, Vice President; Howard Robertson, Secretary; H. S. Swarth, Treasurer; Associate Editor, Howard Robertson; Business Manager, A. I. McCormick; Publication Committee, F. S. Daggett, Jos. Grinnell and Howard Robertson. The secretary's and treasurer's reports were read and copies ordered filed. The treasurer's report showed a balance of $1 on hand. The meeting adjourned to the banquet room where several papers were read.

HOWARD ROBERTSON, Sec'y.

Publications Received.

Chapman, Frank M. Report on Birds Received through the Peary Expedition to Greenland. [Extract from the Bulletin of the American Museum of Natural History. Vol. XII Article XVII, pp. 219-244. Dec. 23, 1899.]

Chapman, Frank M. Description of Two New Subspecies of *Colymbus dominicus* Linn [Extract from Bulletin of the American Museum of Natural History Vol. XII, pp. 255-256.

Rothschild, Hon. Walter, and Ernst Hartert. A Review of the Ornithology of the Galapagos Islands; with Notes on the Webster-Harris Expidition. [From *Novitates Zoologicæ*. Vol. VI. August, 1899.]

Auk, The, XVI, Nos. 1-4, 1899.

Bird-Lore, I, No. 6, Dec., 1899.

Maine Sportsman, VII, Nos. 75-76, Nov.-Dec., 1899.

Museum, VI, Nos. 1-2, Nov., Dec., 1899.

Oologist, XVI, No. 11-12, Nov., Dec., 1899.

Osprey, IV, Nos. 3-4, Nov., Dec., 1899.

Plant World, II, No. 12, Sept., 1899.

Popular Science, XXXIV, No. 1, Jan., 1900.

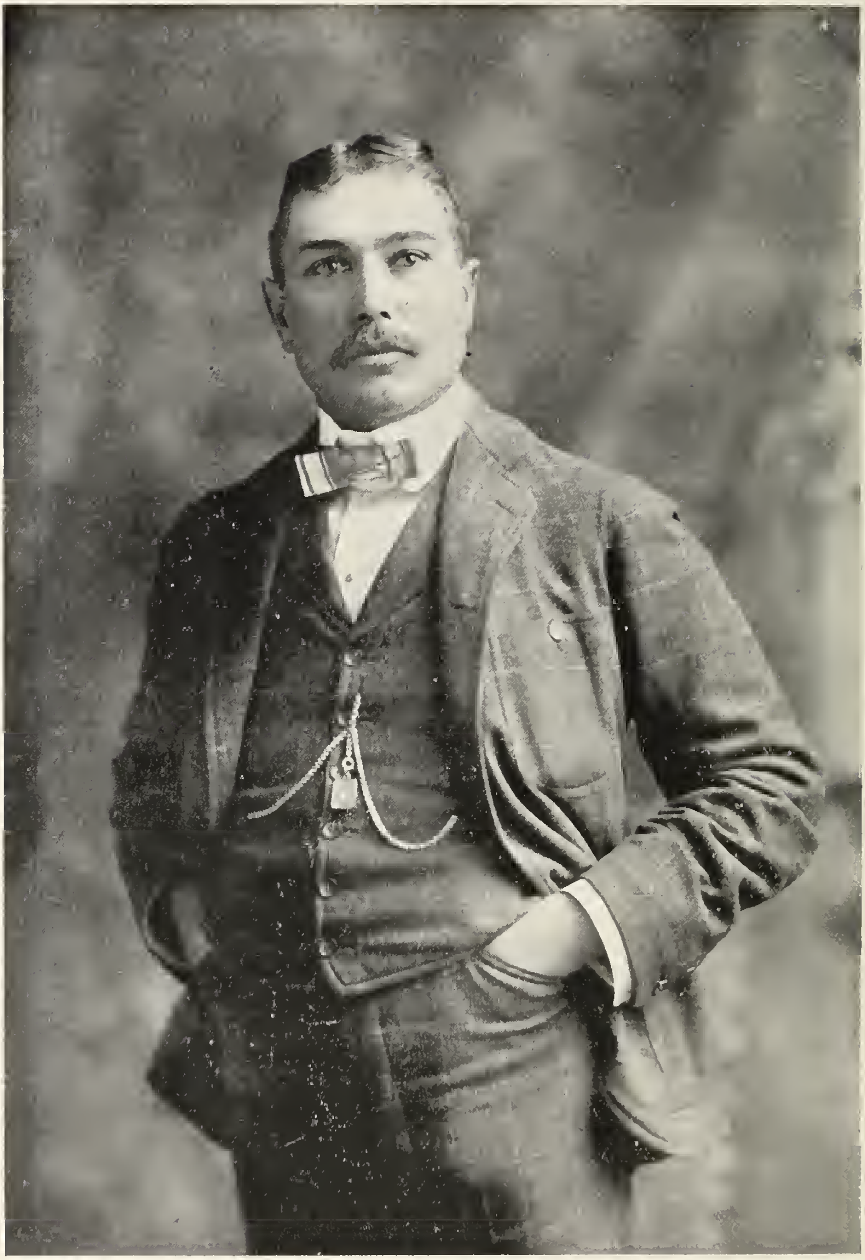
Recreation, XI, No. 6, Dec., 1899.

Report of the U. S. National Museum fo 1897. Part I. (Issued 1899.)

Sports Afield, XXIII, No. 6, Dec., 189 XXIV, No. 1, Jan., 1900.

Sunset, IV, No. 1-2, Nov., Dec., 1899.

Wilson Bulletin, No. 29, Nov., 30, 1899.



Alexander M. Shields.

THE CONDOR.

Bulletin of the Cooper Ornithological Club.
A Bi-Monthly Exponent of Californian Ornithology.

Vol. 2. No. 2. **Santa Clara, Cal., March-April, 1900.** $1.00 a Year.

PROMINENT CALIFORNIAN ORNITHOLOGISTS.

III. A. M. Shields.

FEW oologists are better or more favorably known than Mr. A. M. Shields, the subject of this brief sketch, and those who have become acquainted during the past fifteen or twenty years with this active field collector, through his graphic and accurate contributions to the life histories of birds or his genial personal correspondence, will appreciate the satisfaction of the editors of The Condor in the presentation herein of a late portrait, the first one of Mr. Shields to appear in an ornithological journal.

In looking over the file of the dear old *Young Oologist* (Vol. I, 1884), we come across some of the first published articles by Mr. Shields on collecting, when his home was at Los Angeles, and then it was that with rapturous interest we followed his experiences at "Nigger Slough," and "Gospel Swamp," of which he wrote by way of explanation: "The swamp part of the name is all right, but I could never just see where the 'Gospel' part of the business comes in, for the country itself, full of dark sloughs and deep bog-holes, is very far from being gospel-like."

Alexander M. Shields was born in Knoxville, East Tennessee, April 28, 1865. He has been an egg collector and student of bird-life for over twenty years, and is, as will be seen, not quite old enough to be a great grandfather. He was always an ardent naturalist and spent all his idle moments in early boyhood in reading all available books on natural history.

"I began my collecting experience," says Mr. Shields, "when I was ten or twelve years of age, and collected eggs of 'brownies,' 'chippies,' 'blue canaries' and other correctly named (?) local species, and used the time-honored cigar boxes to contain my scientifically (!) collected, end-blown specimens which were valued by their number and colors more than anything else." By the usual course of evolution experienced by many of us, scientific methods were followed and the Shields' collection now represents probably 500 species and sub-species, over 3000 sets, aggregating ten to fifteen thousand eggs.

Mr. Shields' home is now in San Francisco, and although he occupies an important position as Pacific Coast Manager of the Equitable Life Assurance Society, he is still enabled to devote some time, although much less than formerly, to scientific matters. He is an enthusiastic sportsman as well as naturalist, and one of the phenomenal wing shots of California. He is president of the Empire Gun Club, and a member of six other shooting organizations, while retaining his active membership in the Cooper Ornithological Club and his association with the A. O. U., California Academy of Sciences and several other natural history clubs.

Mr. Shields' first published paper was on the "Nesting of the Black-necked Stilt," (*Young Oologist*, Vol. I, No. 3) and he has always made a special study of the waterbirds. Among some later and noteworthy contributions to learning may be mentioned his papers on the ducks; description of "An Ibis Rookery in California," "Collecting an Egg of the California Condor," and a very valuable article, recently appearing in the *Bulletin of the Cooper Ornithological Club*, on the nesting of the Fulvous Tree Duck.

H. R. T.

A Night on Land.

BY A. W. ANTHONY, TAYLORSVILLE, CAL.

[Read before the Northern Division of the Cooper Orn. Club, March 3, 1900.]

FROM the day I was informed that "not a living thing" was to be found on the San Benito Islands, I made up my mind that they were well worth a visit, and when, one after another of the captains of coasting vessels repeated the threadbare statement, my anxiety grew until I began to regard the rocks as the most interesting spot in the Pacific. Many similar islands I had visited, all of which were forsaken by all living creatures—if the statements of the fishermen and sealers were to be believed—and I usually found that the more "accursed" an island was, the more interesting it was found to be from the standpoint of the naturalist. I was hardly prepared, however, for the appearance of desolation that greeted me when I first dropped anchor in the lea of the westernmost of the three islands that form the group, which lies about sixty miles off the coast of Lower California and about twenty miles from Cerros Island, the largest of the islands on the Pacific coast of the peninsula.

I have said that the outlook was not encouraging. Hardly a sea bird was in sight; in place of thousands of gulls, cormorants and pelicans that usually enliven the region of a "bird island" in these waters, a dozen or so Western Gulls (*Larus occidentalis*), half as many cormorants and one or two Royal Terns (*Sterna maxima*) seemed to comprise the avian census of the islands. It was evident at a glance that there were no large rookeries of these species to be found. On landing, the island was found to be fairly honey-combed with the burrows of Cassin's Auklet (*Ptychoramphus aleuticus.*) As it was late July this species was nearly through with its season's housekeeping, and one or two burrows which were opened contained petrels. As petrels can be seen in their glory only at night, we paid them a call after dark and were well repaid for our trouble. Since then I have several times wandered over the more level paths of this island at night, and have always found a bird population that has surprised me, familiar as I am with that and similar rookeries.

As I recently tried to give a crude idea of what was to be seen and heard on the water after night-fall, I will borrow a few notes from my field book concerning what transpired on land during one of my night calls on the birds of San Benito. Leaving the schooner soon after it was fairly dark, we pulled to the landing a few hundred yards from the anchorage. On a high rock lying in front of and breaking the sea from the landing, we disturbed a Frazar's Oystercatcher (*Hæmatopus frazari*), which flew past the boat uttering its rattling alarm. There is always an Oystercatcher on this rock at night. Sometimes it is the present species, but as often the Black (*Hæmatopus bachmani*), and they never fail to herald the landing of a boat. Sometimes the Oystercatcher is accompanied by a Wandering Tattler (*Heteractitis incanus*), which is a great night feeder, and can be heard at all hours, though seldom seen at night.

Hauling the boat out on the shingle, a few steps places us in the city of birds, a fact we discovered by breaking through into the burrows at almost every step, but the birds themselves are very much in evidence. Hundreds of inky black objects are dashing about with bat-like flight, now here, now there, with no apparent object in their wanderings. Like butterflies they come and go, flitting so near at times that one attempts to catch them as they pass. Others are constantly coming from the burrows to join in the revel. Each, as it reaches the outer air, utters its characteristic call, flops along the ground a few feet, somewhat like an old felt hat before the wind, and is away, as graceful and airy as the rest. Those in the air are constantly calling and from the ground under our feet come answering cries. The noise and confusion suggests a busy street in a city.

From the harsher notes of the Black Petrel (*Oceanodroma melania*), the very similar cries of the Socorro Petrel (*O. socorroensis*) are distinguished. The former birds are far more numerous and as yet have only eggs in their nests, while most of the latter have young by July 15, and are soon away at sea in search of food, which consists entirely, so far as I am able to discover, of the young of the rock lobster. Now and then a Cassin's Auklet flew by like a feathered bullet, with food for a hungry squab, and one that passed so close to my face as to make my hair rise, was captured and found to be full to overflowing with the same larval lobsters eaten by the petrels.

As the beach is left behind and the booming of the surf becomes less noticeable, the bird notes are more easily distinguished. A Royal Tern is heard flying overhead, and on the hillside above us a Burrowing Owl (*Speotyto c. hypogæ*) calls. It is rather surprising that the owls should be found on such small and uninviting islands, yet I have found them on almost all of the islands off the coast of Southern and Lower California, even to the small islets of but a few acres in area.

As soon as the rocky ground at the base of the hills is reached, a strange note is heard which seems to come from the loose rocks fallen from a small ledge above, and resembles the "whirring" of a rapidly revolving cog wheel. For about ten seconds the whizzing continues, when suddenly a note is dropped,—there is a quick gasp, as for breath—and instantly the wheels begin to revolve again, having given one the impression that there is a broken cog in the buried machine. I have no idea how long the strange note might be continued. I have waited until my patience was exhausted, and always the same "cog" was slipped, at exactly the same interval, and the bird was as fresh as ever when I left it with its unfinished song. Another note of this species which is occasionally heard from the same rock pile and which gives one a clew to the author, is exactly like the cry of the two petrels above mentioned but is higher pitched and more hastily uttered, giving one the idea of a smaller bird, as indeed it is, the Least Petrel (*Halocyptena microsoma*.)

This species I have never found in burrows, but always in loose rocky ledges or under rocks. In a rock wall about seven feet long and less than two feet high, I once found twenty-eight of these little petrels, but I have never found them on other islands of the coast. The discordant notes of the Blackvented Shearwater (*Puffinus gavia*) is also heard among the higher rocks of the island and it is quite probable that they have young in some of the holes in the ledges. They are not very abundant on the Benitos, but I have found them in several parts of the island and know of two or three caves where they regularly nest.

As we leave the island the call notes of Xantus' Murrelet (*Brachyramphus hypoleucus*) comes from several quarters along the kelp. Although the species has long since taken its young to sea, it regularly visits the islands at night but at day-break is far from land again. A flock of a dozen or more Western Gulls accompanied by a few Heermann's, are strung out in a long line astern of the schooner, resting on the water and waiting for breakfast. They were there at sunset, and will be there three weeks from now, if we stay so long. Overhead, and as far as the eye can reach in the moonlight, flit dusky shadows of petrels. The air is vibrant with their calls, mingling with those of Cassin's Auklet, Xantus' Murrelet, and the more distant notes of shearwaters. Truly, though San Benito may be a quiet spot by day—as bird islands go—, it teems with life at night!

* * *

Mr. A. W. Anthony writes that he has seen Brewer's Blackbirds going into woodpecker's cavities in the firs over 100 feet from the ground, along the Columbia River Valley.

* * *

Mr. Jas. J. Carroll of Waco, Tex., reports the taking of ½ and ⅓ Bald Eagle during January, sets of three eggs being very unusual with this species.

* * *

Mr. Joseph Mailliard presented a paper at the meeting of the Section of Ornithology of the California Academy of Sciences on March 6, entitled "Formaldehyde as an Aid in Bird Collecting."

Nesting of the Streaked Horned Lark.

BY J. H. BOWLES, TACOMA, WASH.

CONTRARY to the opinion entertained by certain of my ornithological brethren, I think the title of this article will convey to the mind of the average reader at least, an inkling as to the identity of the subject. However, to clear away the doubts of scientists, it is also known as *Otocoris alpestris strigata*. Around Tacoma these little larks are extremely local in their distribution, large areas of prairie being altogether untenanted, while an exactly similar piece of land will be swarming with them. They seem to be largely influenced by their fondness for human society. This is clearly illustrated by a walk over the links of the Tacoma Golf Club, a section of prairie about one mile long by three-quarters of a mile broad, and which is covered with players all through the year.

The surrounding prairie extends for miles where hardly a dozen pairs of the birds can be found in a day's walk, while on the links last summer I estimated that fully one hundred pairs must have nested. Indeed, so sociable are they that only an occasional nest is placed more than a few feet from the "putting green" or the "tee-off" (golfers will understand.) As Major Bendire considered the nesting of these birds a comparatively unknown quantity, I spent a large part of my spare time last summer in studying them, with the following results, to which I have added a few dates of the past two years.

They begin to arrive in this vicinity in the latter part of February, for the most part already in pairs. Towards the end of October both young and old assemble in flocks and leave very soon afterwards, although a few single birds usually stay through the winter. The earliest date for eggs was a set of two on April 30, in which incubation was far advanced, and I consider this to be as early as they ever breed here for I have never seen young birds that would indicate an earlier date. The height of the nesting season does not come until the middle of May and lasts through the first week in June, although I took a slightly incubated set of two eggs on July 26.

The nest is a very difficult one to find and my first efforts were most discouraging, indeed I may add, that without the use of my dog I have never found a nest except by chance while playing the game of golf. My dog considers nesting a most welcome diversion during the summer months, when for some inconceivable reason I do not shoot

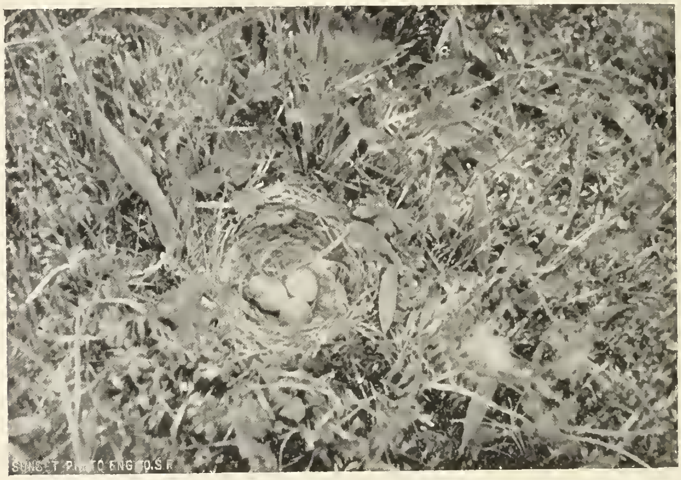


Photo by J. H. Bowles.

NEST AND EGGS OF THE STREAKED HORNED LARK.

game birds, even when he points one sitting on her nest. He will hold his point on any nest, if containing eggs or birds, as steadily as on a grouse or snipe, and, judging by the number found, few sets of this lark could have escaped my notice in the place we hunted.

The location of the nest may be almost anywhere on the ground, but the soil must be extremely dry. As a rule the birds scratch out a hole for themselves about two and one-half or three inches deep, both birds working, but I have found nests in the hoof prints of cattle, in cart ruts, holes made by dislodged stones and one that was placed in an unused golf hole. They are usually very frail, slight structures, though occasionally a bulky one is found, constructed of fine dead weeds. An exception to this rule was a very large nest well lined with grass, fir needles and feathers, which is shown in the illustration, *in situ*.

In some twenty-five or thirty nests examined, those containing two or three eggs to the set seemed to be about equally divided, so that either may be called the usual number. The sets found early in the season almost invariably are of two eggs, while three eggs to the set may be expected with almost equal certainty in the latter half of the season. Only one set contained four eggs and I think this must be considered a very rare exception. The eggs differ greatly in color, the ground varying from a dark greenish-slate to a very light slate-white. The markings vary from a light gray to a deep greenish-red, more or less thickly sprinkled over the entire surface and usually being either confluent or ringed about the larger end.

In shape they vary considerably, some being long and rather slender, while others are more nearly round. The average of twenty-three eggs is .623x.826 inches, the largest measuring .64x .86 and the smallest, .59x.79 inches. Both birds assist in the duties of incubation and are seldom found at any great distance from each other during the entire nesting season. The males occasionally, towards evening, rise in a fluttering manner fifty or sixty feet into the air, uttering a very pleasing sort of twitter, which gradually develops into quite a little song as they reach the apex of the flight and descend. In spite of their fondness for a hot, dry locality, they are very partial to shade while incubating, as I have frequently found nests built under stones, large tin cans, boards, and on one occasion under a large piece of tarred paper which must have formed an admirable umbrella.

Notes on the California Clapper Rail.

BY ERNEST ADAMS.

[Read before the Northern Division of the Cooper Orn. Club, Jan. 6, 1900.]

The California Clapper Rail (*Rallus obsoletus*) has afforded me many a happy hour at its marshy home. I have often thought that their awkward, apparently senseless, traits alone, ought to protect them from the hunter. yet the poor amateur sport who wades through the tall, wet marsh grass or sits shivering all day in his 'blind' without even getting a shot at a duck, is glad enough to pick up a rail or two on his homeward way; and we poor fellows who cannot hit a duck when we *do* get a shot, feel a thrill of delight when one of these birds rises from beneath our feet.

Once I flushed a rail from the grass a few feet ahead of me, and as he was lumbering off to a respectable shooting distance, another rose and flew within two feet of my head. I "poked" my gun at him but was so much amused at his actions, I forgot to shoot. The first time I ever saw one running up a slough I laughed so hard at him that he stopped and looked at me for half a minute and then stuck his old head in a bunch of grass:—perhaps he was laughing *too*!

During several seasons of collecting, I have noticed that some days I would kill nothing but males of this species, while at another place only females were shot. Again when two of us were separated on the marsh one would procure males and the other females only. This would indicate that in the fall and winter at least, the sexes resort to different feeding grounds. The birds fly very heavily and only for short distances but the fleetness of foot is as remarkable as it is ungainly. When wounded they make good use of their legs and claws as well as their bill. This rail rarely swims for the mere pleasure it affords, but it can often be seen crossing a large slough, and when injured is very agile in the water.

By the first of March the clattering of the rails on the feeding grounds is very loud and discordant, but soon the birds scatter and a month later full complements of eggs may be found. I have often seen two birds about a nest and I am certain that the male assists in incubation. The favorite nesting site is upon the banks of the numerous small sloughs which protrude far inland, yet occasionally a nest is found some distance from high tide mark, and I have observed half a dozen old nests, which I attributed to this bird, in barrels deposited at flood tide.

Like many other rails, *Rallus obsoletus* builds nests which it never uses. During the past season I often came across three or four new nests within a radius of about six feet, only one containing eggs. Most of these were never completed but a few seemed to possess all the advantages of the occupied home. The nests are uniformly composed of dry marsh grass placed under small bushes or sometimes exposed fully to the weather. Many become thoroughly water-soaked before the eggs hatch. The birds are very close sitters and a trained dog can often pick them off the nest. If surprised suddenly they will fly after jumping from the nest, but more often they glide directly into the slough or, unperceived, run along a trail in the tall grass.

Sets vary from six to twelve or more eggs. The young are said to be very interesting little creatures, and grow to be amusing pets if kept under proper influences. Many writers of recent date have noted the lessening in the numbers of California Clapper Rail, but where I have collected on the San Francisco Bay they appear as plenteous as ever and breed in large numbers. The photograph accompanying this was taken in May 1899. The day was windy and as an exposure of three seconds was given, the picture was blurred to some extent.

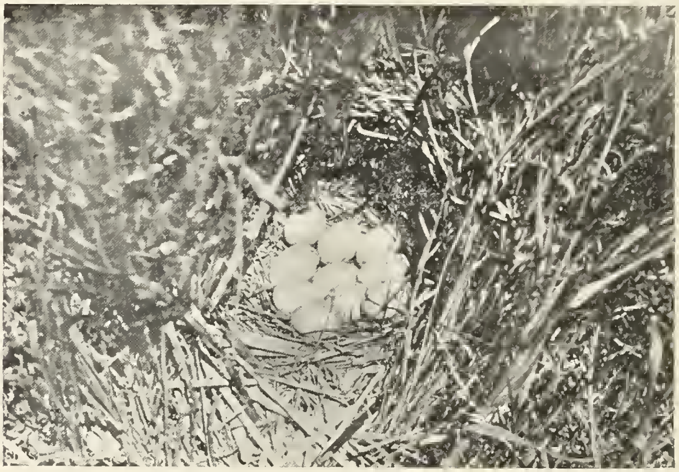


Photo by Adams.

NEST AND EGGS OF THE CALIFORNIA CLAPPER RAIL.

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HENRY B. KAEDING of Taylorsville, Plumas Co., Cal, has accepted a position with a mining syndicate in Corea, and has disposed of his collection of skins to Mailliard Bros., the collection containing many Sierra Nevada forms.

Echoes from the Field.

Nesting of the Pileolated Warbler in Los Angeles Co. My first set of this species was taken this year (1899) among the willows along New River, and the birds proved to be common and quite tame in this locality, some twenty nests being examined. The first layings were taken April 29, 1899 when three nests were found. Nest No. 1 contained four fresh eggs while No. 2 contained four considerably incubated ones, both nests being in blackberry vines and a species of *Papyrus*, one foot from the ground and were composed of dry willow leaves, weed stems and grasses, lined with finer grasses. The third nest was built in an old Song Sparrow's nest situated in a willow tree among dry thistle stalks three feet from the ground and contained two fresh eggs. On May 18 four nests were found, two containing young a few days old and two containing three eggs each, both sets so badly incubated that they could not be saved. These nests were all in *Papyrus* from six inches to three feet above the ground. On June 10 I found one set of two fresh eggs and sets of three and four eggs, both considerably incubated. The nests were all against willow trees among the blackberry vines. June 18 I observed one set of two feesh eggs, one of three eggs slightly incubated and one set of three with incubation advanced. July 2 the last sets were observed, consisting of two sets of three eggs each, slightly incubated and three nests with young. The eggs of this species measure about .60x.48 inches, creamy white in color, spotted with reddish and lilac, some eggs having a wreath at the large end while others are almost covered with markings. J. J. SCHNEIDER, Anaheim, Cal.

Woodpeckers as Flycatchers. While the woodpecker stands in our books as an insectivorous bird, he is not ordinarily thought of as taking bugs on the wing. Such cases have been recorded, however, and I wish to add another. In August 1898, near Fall River Mills, we saw a *Melanerpes torquatus* capture a large butterfly in true flycatcher style. I am inclined to think that birds of this species recorded by Major Bendire, (Life Hist. N. A. Bds. II, p. 119) as storing mayflies in crevices of pine trees, may have caught them flying. Another species, *M. formicivorus bairdi*, has been seen in the same flycatcher business. Mr. T. J. Hoover tells me of two cases recently witnessed by him, one of which at least was successful.

It is well known that the Californian Woodpecker puts in his spare time decorating the oaks with acorns, but that he should try to fill a barn seems rather unusual. While I was at the Battle Creek Salmon Hatchery in the fall of 1898, an old hay barn standing near the hatching house was demolished by the Fish Commission. Woodpecker holes had been noticed in the eaves, but not until the roof was taken off did I suspect the birds of having any stores there. From each of several of the little compartments in the eaves, a large hatful of acorns was taken. The nuts had been dropped through holes made by the woodpeckers in the face of the eaves and as the holes remained empty, I presume the woodpecker forgot he had put nuts there already and so hunted others to fill them. The nuts were well stored, but no woodpecker could ever have drawn on them in time of need without enlarging the holes. RICHARD C. MCGREGOR, Palo Alto, Cal.

Junco Hyemalis at Haywards, Cal. This junco has again been a winter visitant to this part of California. On Nov. 21, 1899 while collecting some juncos at dusk from a blue-gum tree in my garden, a male was brought down with several others and proved to be a typical *hyemalis*. This is the second I have recorded from this locality in twenty years. A female was caught in a trap set for small birds in the garden on March 20, 1880. Some fourteen specimens of this junco have been recorded for the state and no doubt there are others unrecorded. In Mr. Clark P. Streator's "Birds of British Columbia," he notes them as being one of the commonest birds in that province. The winter of 1897 seems to have found them unusually common about Pasadena, Cal. as five were taken and several others seen among flocks of other juncos. W. OTTO EMERSON, Haywards, Cal.

Occurrence of American White Pelican and the American Avocet at Haywards, Cal. During the week of Nov. 17-24, 1899, large numbers of Avocets (*Recurvirostra americanus*) could be found feeding in the shallow salt ponds along the bay shore below Haywards. Several hundred could be seen bobbing up and down on the water, as they feed at the bottom of the ponds, which are only eight or nine inches deep. They are seldom seen in large flocks about the marsh ponds.

On Dec. 24, 1899, an adult male White Pelican (*Pelecanus erythrorhynchos*) was noted in a vacant lot in the center of the town of Haywards. It was first seen sailing low over the buildings at dusk and was followed by a band of small boys. One, a lad of great courage, told me he was afraid at first to tackle such a big-billed bird, but using one arm as a guard for his face, he made a center rush and put his arm around the big fellow, and bore off his prize! Two others were seen to alight in a field near town. Another was brought to me on Dec. 30, a lad having shot it in Redwood Canyon Creek, some six miles from Haywards. The bird was alone in the creek bottom. A thick fog was hanging over the valley, no doubt causing the pelicans to lose their bearings along the bay shore. This is the first time the species has been recorded from this locality.

A female Lewis' Woodpecker (*Melanerpes torquatus*) was shot in my orchard Jan. 4, 1900, and I have noticed it but twice in twenty years in this vicinity.

W. OTTO EMERSON, Haywards, Cal.

Nesting of the California Cuckoo in Los Angeles Co., Cal. During the season of 1899 I found three nests of this species (*Coccyzus a. occidentalis*) in the willows along New River, where some of the birds may always be found during the spring and summer. Set No. 1 was taken June 17, 1899 and contained three fresh aggs. The nest was placed in a very bushy willow seven feet up and composed entirely of willow twigs and leaves, being very frail and flat and of the size of a dove's nest. Set No. 2 was taken July 2 and contained four badly incubated eggs, the nest being placed on a horizontal limb of a willow, six feet from the ground and similar in construction to the last. It would not have held another without an addition being made to the nest. The last set was taken July 19 and contained four eggs, considerably incubated, the nest being similar to the others.

J. J. SCHNEIDER, Anaheim, Cal.

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On the Range of Some California Birds.

RICHARD C. MCGREGOR.

The excuse for the following notes is that they either extend the known range of the various birds mentioned or supply additional evidence of their occurrence in the given localities. To make more certain of the identification, specimens of all except the Waxwing and Roadrunner were sent to Mr. Ridgway who kindly gave his opinion on them.

Ampelis garrulus.—This species must be of rare occurrence in California as I find no records in the lists examined. It is not mentioned in the Death Valley Report, *N. A. Fauna No 7;* Ridgway and Coues give it as south in winter to northern border of the United States; Belding (*Ld. Bds. Pac. Dis., p. 165*) records it from British Columbia, Fort Walla Walla, Camp Harney, Willamette Valley and Fort Mojave, none of which are California records. However, as Fort Mojave is on the east side of the boundary, Cooper's record may or may not apply to California. The Stanford University collection contains a specimen taken by Edw. Garner at Quincy, Plumas County. The bird is a male and was collected February 15, 1892. Bryant has recorded the species from Susanville, where six were taken in February, 1892. (*Zoe, IV, 226.*)

Geococcyx californianus.—The Roadrunner has been observed occasionally among the hills west of Palo Alto and we have taken a few specimens near Santa Cruz, but never have considered it to be at all common so far north as the San Francisco peninsula. I was consequently interested when my friend, Mr. Cloud Rutter, told me of seeing one near the Battle Creek Salmon Hatchery in October, 1898. I have no doubt as to his identification being correct. Another friend reported the species from Stillwater, twenty miles north of Redding, but I do not consider this reliable.

Poœcetes gramineus affinis.—Grinnell (*Bds. Pac. Slope, L. A. Co., p. 36.*) records this form as a common winter visitant of Los Angeles County, and Willard (*Bull. C. O. C., I, 30*) has taken it in Alameda County. I have a bird of the year taken at Berryessa and an adult taken at Battle Creek in October. In winter, probably, it is to be had throughout the state in suitable localities.

Carpodacus mexicanus clementis.—In measuring a series of finches from the southern coast islands, I find that those from Coronado and Todos Santos Islands are referable to *clementis*, thus extending the range of the sub-species into Lower California. Four from Todos Santos Island have the bill longer than in mainland birds and more slender than in *clementis* from more northern islands. The differences are very slight and do not warrant separation at present. Mr. Ridgway says that he refers to *clementis*, specimens from all the Santa Barbara islands, although they differ to a greater or less degree on different islands.

Astragalinus psaltria arizonæ.—I believe this race has been taken by Emerson at Haywards. Two examples from about fifty or seventy-five goldfinches collected at Palo Alto may be called *arizonæ*. There is a great variation in a large series, and perhaps more extended collecting would produce typical examples of this southern form.

Melospiza lincolni striata.—The type of this subspecies came from British Columbia, so we may reasonably expect to find it in Northern California. A female taken at San Geronimo, Marin county, February 10, 1899, is marked "*striata*" by Mr. Ridgway. An October female from Battle Creek, and a December male from Saint Helena are heavily streaked, and if not *striata*, are very near that race. All these northern skins are much darker than winter San Diego county skins. Mr. Chase Littlejohn has two birds, taken at Redwood City, which were identified by Washington authorities as *striata*.

Ammodramus sandwichensis. — This species seems to have been rarely taken in California, and it is therefore a pleasure to record two specimens at least; one male taken December 9, 1884, at Gridley by Mr. Belding and a female which I secured at Battle Creek, October 13, 1898. The Sandwich Sparrow is doubtless a regular winter visitant to northern California, but as it associates with the commonest species (*alaudinus*), is usually overlooked. It may be known by the longer wing, longer and deeper bill. On a fence, as I went to work each morning at Battle Creek, there were always from six to a dozen Western Savanna Sparrows. Had more of these been taken it is probable that more of the larger bird as well would have been taken.

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WITH the second volume of the *Journal of the Maine Ornithological Society*, J. Merton Swain of Portland, Me. assumes the duties of editor as successor to Mr. C. H. Morrell. The January issue contains a report of the society's annual meeting, an interesting paper by Ora W. Knight on certain sea birds of the Maine coast and other articles of merit. We congratulate our Maine brethren upon the neat appearance of their *Journal*.

MR. JOSEPH GRINNELL of the Southern Division has begun a two years' course at Stanford University, and his presence will grace the meetings of the Northern Division for some time to come.

RALPH Arnold writes from Stanford University under date of Feb. 25, that he has thus far found two nests of Anna's hummingbird this year, both containing young.

WM. L. ATKINSON of Santa Clara, Cal., reports California Shrike 1-6, Arkansas Goldfinch 1-4 and Barn Owl 1-7, all taken on March 5 while out after birds. This would seem to indicate an early season.

Consolation for Bird Protectionists!

Following are sections from a holographic conception, *ad literatim*, which fell into the clutches of an associate editor of The Condor. Feeling that it would be a little short of a crime to withhold such a gem which should indeed delight the hearts of all the ultra-bird-protectionists, here it is:

"Dear Friends:—Sample copy of Bulletin of Cooper Ornithological Club is at hand. and its Contents in its Place. must Say that I am not able to master more Reading matter as I hav at Hand now! but Friends I Greet you as a Club in behalf of our Fethert Frinds of this Continent it Needs Organisations of this Class and the more the better. but let us not only Bear in mind together the wonderful Knowledge of the Seekreaths of Each and All of our companions and there lifes Stories which charms ech and every lover of Nature. it seems to mi that it wil hearafter be the Duty of the Ornithologist not only to make collections of Eggs and Scins To Fill Museums. and Exihibitions and Private Collections of Eather. Which is overdon. if going on at the Rate as heartofore it wil bi only a Matter of Time when many Verieties wil bi no more! A Frind of the Birds should First of All Trye to Prevent Routing out any God given species it should be his Honore to Preserf what is left of them to Day Let us look Back in the short space of the Past and wi must admit the monstrosity with which many Species hav bing Exterminated in So Short a Space wil Fill Everyone with Sorrow and Greaf. and wil make short work of Destroying the onest Butiful Bird world of America. You all Know My Frinds What Power the Almighty Doller has. 25 millions Butiful Singers pr anum for Lady's Head Trimming. for Robbins Pye. and Blue Gees [Blue Jay's?] Stue. the Mani Bisnis Houses that Deels in Bird Scins and Eggs from a Sparrow to the Rarest. all is don for the Doller. and no end in Sight until the last one of many kinds will bi no more! Unles our Noble and True lovers of Natures Grandest Buties wil Join together Speedily to Put a Strict Halt to the Murderous Praces. Hand in Hand. Pull the Rope together in Protecting them. the onest Noble Bison shoes a Clear Cut. 30 years ago our Horizant Darkenet with many millions of Wild Pitgeons. not one Comes more. the wild Gees allmost gone? The Deer in its Last State. European Countrys have to Day more Game and Birds as this so Butiful gifted Country with its Endless Forrest and Lakes Mountains Madows and Streams and Haunts. Our Norther Latitude at this time has Lent its Summer Birds to your Clymes where Milder days and better Spreat Tables awayts them. all hav gon! and mi hope to see them again. Even the Raven is seldom. the Owl. the Woodpecker. Bluegees the Chicadee Several Sparrow kinds remain with us Ever. and the only left. wi have an Autumn Mild and Nice wether And as non of us Ever witnesed the last Few days. the Fore bottings of Winter hav arrived Two Kinds of Snowbirds from Further Northern Countrys Wi can Rely on Snow and Cold days from now on. My Frinds I live amongst the Birds. and they are Mi True Frinds. there little lifes are my amusement and studi for I lov Naturs Treshures and wil Never Siese to Protect them."

How true it is! "All have gon! even the Raven is Seldom." H. R. T.

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In his address before the Annual Meeting of the Northern Division of the Club, President Emerson proposed that the Club should have a study collection of 5,000 Californian skins for the use of its members and others. To start such a movement Mr. Emerson suggests that each member who inclines toward the study of skins donate 100 skins, and he generously offers to contribute double the number himself as a nucleus. The proposition is one easy of accomplishment if the members of the Club will take hold of it.

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Letters touching upon the value of the papers published in the Condor continue to flow in, and we assure the writers that their kind words are appreciated.

Avifauna of a 100-Acre Ranch.

BY H. S. SWARTH, LOS ANGELES.

[Read before the Southern Division of the Cooper Orn. Club.]

Concluded from last issue.

66. BELTED KINGFISHER. *Ceryle alcyon.* A regular and rather common migrant, seen sometimes but rarely in the winter.

67. GAIRDNER'S WOODPECKER. *Dryobates pubescens gairdneri.* In six years I have shot one bird and seen one other. Each of these was in the fall migration.

68. NUTTALL'S WOODPECKER. *Dryobates nuttalli.* On Aug. 7, 1897 I shot an immature male, the only time I have seen an individual of this species about here.

69. RED-NAPED SAPSUCKER. *Sphyrapicus varius nuchalis.* A female adult shot Oct. 17, 1899.

70. RED-BREASTED SAPSUCKER. *Sphyrapicus ruber.* A winter visitant of rare and irregular occurrence.

71. CALIFORNIAN WOODPECKER. *Melanerpes formicivorus bairdi.* I have seen just one bird in the vicinity, and was unable to get it.

72. RED-SHAFTED FLICKER. *Colaptes cafer.* These birds arrive about the end of September and are very common all through the winter and until late in the spring.

73. DUSKY POOR-WILL. *Phalænoptilus nuttalli nitidus.* On Sept. 30, 1898 I shot an adult female. I saw another on Oct. 25 but was unable to get it.

74. TEXAN NIGHTHAWK, *Chordeiles acutipennis texensis.* A common migrant, the young birds usually appearing by the middle of July. I have never known them to breed in the immediate vicinity.

75. VAUX'S SWIFT. *Chætura vauxii.* A migrant, far more common in the fall than in the spring, and more numerous in some years than in others.

76. WHITE-THROATED SWIFT. *Aeronautes melanoleucus.* Seen during the migrations and often in the winter.

77. BLACK-CHINNED HUMMINGBIRD. *Trochilus alexandri.* A rather rare migrant. I have seldom seen more than two or three during a migration.

78. ANNA'S HUMMINGBIRD. *Calypte anna.* Very common every month in the year.

79. COSTA'S HUMMINGBIRD. *Calypte costæ.* A very rare spring migrant.

80. RUFOUS HUMMINGBIRD. *Selasphorus rufus.* A common migrant. In August and September the young birds are especially numerous.

81. CALLIOPE HUMMINGBIRD. *Stellula calliope.* A rare migrant. One fall an adult male was seen by Mr. G. F. Morcom, feeding on some flowers in the garden. I saw a male April 22, 1898 but was unable to get it.

82. ARKANSAS KINGBIRD. *Tyrannus verticalis.* A common summer resident.

83. CASSIN'S KINGBIRD. *Tyrannus vociferans.* Common during the fall migration and often seen through the winter. Seen occasionally in the spring.

84. ASH-THROATED FLYCATCHER. *Myiarchus cinerascens.* A regular and rather abundant migrant.

85. SAY'S PHOEBE. *Sayornis saya.* A common winter resident. I shot one as late as April 6, 1898.

86. BLACK PHOEBE. *Sayornis nigricans.* A common resident.

87. OLIVE-SIDED FLYCATCHER. *Contopus borealis.* A regular but not abundant migrant.

88 WESTERN WOOD PEWEE. *Contopus richardsonii.* A common migrant.

89 WESTERN FLYCATCHER. *Empidonax difficilis.* Usually an abundant migrant. I shot a male on March 21, 1899, which was unusually early and did not see another bird during the migration. In the fall the immature birds are generally quite abundant.

90 TRAILL'S FLYCATCHER. *Empidonax trailli.* A common migrant.

91 HAMMOND'S FLYCATCHER. *Empidonax hammondi.* I shot one April 30, 1898. This is the only one I have seen in the vicinity.

92 GRAY FLYCATCHER. *Empidonax griseus.* A rare migrant. I shot one on Nov. 5, 1897, and secured two on April 22 and 24, 1898.

93 VERMILION FLYCATCHER. *Pyrocephalus rubineus mexicana.* On Oct. 17, 1895, Mr. G. F. Morcom shot an immature female.

94 MEXICAN HORNED LARK. *Otocoris alpestris chrysolæma.* An abundant resident in less than half a mile in almost any direction, but seldom alights within the territory included in these notes.

95 BELDING'S JAY. *Aphelocoma californica obscura.* Of rare and irregular occurrence. I have seen but two or three altogether.

96 AMERICAN RAVEN. *Corvus corax sinuatus.* Frequently seen during the migrations.

97 AMERICAN CROW. *Corvus americanus.* A common migrant.

98 YELLOW-HEADED BLACKBIRD. *Xanthocephalus xanthocephalus.* An irregular spring migrant; some years abundant and in others entirely absent.

99 REDWINGED BLACKBIRD. *Agelaius phœniceus.* A common resident.

100 TRICOLORED BLACKBIRD. *Agelaius tricolor.* During the spring migration Tricolored Blackbirds are occasionally seen in the flocks of Redwings.

101 WESTERN MEADOWLARK. *Sturnella magna neglecta.* A common resident.

102 ARIZONA HOODED ORIOLE. *Icterus cucullatus nelsoni.* Rather common during the migrations; a few pairs breed in the vicinity.

103 BULLOCK'S ORIOLE. *Icterus bullocki.* A common summer resident.

104 BREWER'S BLACKBIRD. *Scolecophagus cyanocephalus.* A few pair breed here late in the season. After the breeding season is over they gather in large flocks and remain here while moulting. Soon after the moult is completed they disappear.

105 CALIFORNIA PURPLE FINCH. *Carpodacus purpureus californica.* Occasionally, but rarely, seen during the winter.

106 HOUSE FINCH. *Carpodacus mexicanus frontalis.* One of the most abundant residents.

107 WILLOW GOLDFINCH. *Spinus tristis salicamans.* A fairly common resident.

108 ARKANSAS GOLDFINCH. *Spinus psaltria.* After raising their first brood here, most of the Arkansas Goldfinches go to the hills and are not seen here again until the breeding season is over. They remain here during the winter but not in any great numbers.

109 LAWRENCE'S GOLDFINCH. *Spinus lawrencei.* Arrive about the first of March and breed in comparative abundance, but disappear before almost any of the summer residents.

110 PINE SISKIN. *Spinus pinus.* During the winter of 1898-99 siskins appeared irregularly in small flocks. I saw one as late as March 23, 1899.

111 WESTERN SAVANNA SPARROW. *Ammodramus alaudinus sandwichensis.* An exceedingly common winter resident, arriving early and departing late.

112 WESTERN GRASSHOPPER SPARROW. *Ammodramus savannarum perpallidus.* On April 30, 1895, Mr. G. F. Morcom shot a male. On October 15, 1898, I secured a female.

113 WESTERN LARK SPARROW. *Chondestes grammacus strigatus.* Next to the House Finch this is probably the most abundant resident.

114 WHITE-CROWNED SPARROW. *Zonotrichia leucophrys.* On April 22, 1898, I secured a female. I shot another, also a female, April 26, 1899, and saw still another that I did not get, on March 29, 1899.

115 INTERMEDIATE SPARROW. *Zonotrichia leucophrys intermedia.* Arrive about Sept. 20 and have all left by the beginning of May.

116 GAMBEL'S SPARROW. *Zonotrichia leucophrys gambeli.* Jan. 13, 1896, I fired at random into a flock of Intermediate Sparrows. I secured several and among them one Gambel's Sparrow, the only one I have taken.

117 GOLDEN-CROWNED SPARROW. *Zonotrichia coronata.* A few are seen every winter, generally in company with the Intermediate Sparrows.

118 WESTERN CHIPPING SPARROW. *Spizella socialis arizonæ.* A regular migrant, but never very abundant. It is rarely seen during the winter.

119 BREWER'S SPARROW. *Spizella breweri.* A regular but not common fall migrant.

120 SLATE-COLORED JUNCO. *Junco hyemalis.* On Feb. 8, 1897, I shot an adult male in a flock of Thurber's Juncos. On Nov. 3, 1898, I shot two more, both males.

121 THURBER'S JUNCO. *Junco thurberi.* A winter resident, some years abundant and on others, hardly seen at all.

122 HEERMANN'S SONG SPARROW. *Melospiza melodia heermanni.* An abundant resident.

123 LINCOLN'S SPARROW. *Melospiza lincolni.* A common migrant. A few are seen through the winter.

124 TOWNSEND'S SPARROW. *Passerella iliaca unalaschcensis.* A winter visitant, not at all abundant.

125 SLATE-COLORED SPARROW. *Passerella iliaca schistacea.* On Dec. 14, 1896, I shot a female.

126 SPURRED TOWHEE. *Pipilo maculatus megalonyx.* Occasionally, but rarely seen in the winter.

127 ANTHONY'S TOWHEE. *Pipilo fuscus senicula.* In seven years I have seen just two of these birds in this vicinity.

128 BLACK-HEADED GROSBEAK. *Habia melanocephala.* A common migrant.

129 WESTERN BLUE GROSBEAK. *Guiraca cærulea lazuli.* A fairly common spring migrant and in the fall the immature birds are quite abundant.

130 LAZULI BUNTING. *Cyanospiza amœna.* A common migrant. On one occasion a pair bred in the vicinity, but it was unusual.

131 LOUISIANA TANAGER. *Piranga ludoviciana.* A common spring and fall migrant.

132 CLIFF SWALLOW. *Petrochelidon lunifrons.* A common summer resident.

133 BARN SWALLOW. *Hirundo erythrogaster.* A migrant; the least abundant of the swallows.

134 TREE SWALLOW. *Tachycineta bicolor.* Occasionally seen during the winter. Quite abundant in February and March. Pass through in the fall but not so abundantly.

135 VIOLET-GREEN SWALLOW. *Tachycineta thalassina.* A common migrant.

136 BANK SWALLOW. *Clivicola riparia.* A migrant, but in what numbers it is difficult to say.

137 ROUGH-WINGED SWALLOW. *Stelgidopteryx serripennis.* A migrant, much more abundant than the Bank Swallow; at least the great majority of those I have shot during the migration are of this species.

138 CEDAR WAXWING. *Ampelis cedrorum.* A common spring migrant and some years quite abundant during the winter.

139 PHAINOPEPLA. *Phainopepla nitens.* Occasionally seen during the migrations, usually in the fall. I saw an adult male on Oct. 19, 1897, and another Jan. 31, 1898.

140 CALIFORNIA SHRIKE. *Lanius ludovicianus gambeli.* A common resident.

141 WARBLING VIREO. *Vireo gilvus.* A common migrant.

142 CASSIN'S VIREO. *Vireo cassini.* A spring migrant, but though comparatively abundant in some years, in others it is almost or quite absent. On Oct. 13, 1898, I shot one, the only fall record I have made.

143 HUTTON'S VIREO. *Vireo huttoni.* Shot a female Dec. 6, 1898, the only one I have taken in this vicinity.

144 LEAST VIREO. *Vireo belli pusillus..* A common fall migrant. Not at all abundant in the spring.

145 CALAVERAS WARBLER. *Helminthophila ruficapilla gutturalis.* A migrant, seen regularly in the fall, but seldom in the spring.

146 LUTESCENT WARBLER. *Helminthophila celata lutescens.* A common migrant, more numerous in the fall than in the spring and seen occasionally though rarely in winter.

147 DUSKY WARBLER. *Helminthophila celata sordida.* A regular and not uncommon fall migrant. I have never seen any in the spring.

148 YELLOW WARBLER. *Dendroica æstiva.* One of the commonest of the migrating warblers.

149 MYRTLE WARBLER. *Dendroica coronata.* Not at all uncommon during the winter.

150 AUDUBON'S WARBLER. *Dendroica auduboni.* Abundant from about the middle of September to the end of April.

151 MAGNOLIA WARBLER. *Dendroica maculosa.* On Oct. 21, 1897, I shot an immature female.

152 BLACK-THROATED GRAY WARBLER. *Dendroica nigrescens.* A regular spring migrant, occasionally seen in the fall.

153 TOWNSEND'S WARBLER. *Dendroica townsendi.* An irregular spring migrant, some years comparatively abundant and in others, almost entirely absent. On one occasion I saw one in the fall migration and once in December. Both of these were females.

154 HERMIT WARBLER. *Dendroica occidentalis.* A rare spring migrant. The only one I have seen in the fall was a single bird on Sept. 10, 1897.

155 MACGILLIVRAY'S WARBLER. *Geothylpis macgillivrayi.* A regular, but not common fall migrant, rarely seen in the spring.

156 WESTERN YELLOWTHROAT. *Geothlypis occidentalis trichas.* A very abundant resident. These birds probably migrate to some extent as their numbers in this vicinity are often greatly increased during the migration. On Apr. 3, 1899, I flushed at least twenty birds, nearly all males, out of a small patch of grass and weeds about fifty feet square. In two or three days they were all gone and only a single pair was to be found in the place.

157 LONG-TAILED CHAT. *Icteria virens longicauda.* A regular and fairly common migrant.

158 PILEOLATED WARBLER. *Sylvania pusilla pileolata.* A common migrant. They arrive here about the first of April and though they do not breed in the locality, they are abundant here, while found breeding in other places. In the fall they are about the last of the migrants to leave.

159 AMERICAN PIPIT. *Anthus pensilvanicus.* A common winter resident. I saw one as late as May 1, 1899.

160 MOCKINGBIRD. *Mimus polyglottos.* A common resident.

161 ROCK WREN. *Salpinctes obsoletus.* A rare and very irregular fall migrant.

162 VIGOR'S WREN. *Thryothorus bewickii spilurus.* A rare migrant, seen more often in the fall than in the spring.

163 PARKMAN'S WREN. *Troglodytes ædon parkmani.* A common migrant and less abundantly a winter resident.

164 WESTERN WINTER WREN. *Anorthura hiemalis pacificus.* On Jan. 22, 1895, Mr. G. F. Morcom saw a Winter Wren in a brush pile near the house but did not secure it.

165 TULE WREN. *Cistothorus palustris paludicola.* A very common winter resident.

166 CANADA NUTHATCH. *Sitta canadensis.* These birds were quite common in this vicinity from the middle of September to about the middle of October, 1898. This is the only time that I have ever seen any in this vicinity.

167 CALIFORNIA BUSH-TIT. *Psaltriparus minimus californicus.* I once saw a single bird in the garden. It is the only one I have ever seen near here.

168 Western Ruby-crowned Kinglet. *Regulus satrapa olivaceus.* A very ommon winter resident.

169 Western Gnatcatcher. *Polioptila cærulea obscura.* A common mirant, seen occasionally during the winter.

170 Russet-backed Thrush. *Turdus ustulatus.* A spring migrant, usually ot very abundant.

171 Dwarf Hermit Thrush. *Turdus aonalaschkæ.* A common migrant and vinter resident; much more numerous some years than in others.

172 Western Robin. *Merula migratoria propinqua.* A winter resident but ery irregular, appearing some winters in flocks of thousands, while in others hey are almost entirely absent.

173 Varied Thrush. *Hesperocichla nævia.* A winter visitant but of very iregular occurence.

174 Western Bluebird. *Sialia mexicana occidentalis.* Seen frequently durng the winter.

175 Mountain Bluebird. *Sialia arctica.* A winter resident, some years bundant and in others entirely absent.

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Communications.

Concerning the Use of Scientific Names.

Mr. Grinnell's article in the January Condor pp. 20, 21) is a very able argument against the xclusive use of scientific names in popular or emi-popular bird books and journals, though he title is misleading, and the reader would uppose, until he reaches the last paragraph ut one,that the protest is against their *general* nstead of against their *exclusive* use.

No reasonable person can make serious or vell-founded objection to the use of vernacular ames in such publications; but since there are vidently some one who regard scientific names s wholly superflous I desire to present one good eason why the latter should *always* be given, vhether accompanied by the vernacular name r not.

So far as I am aware, no one has yet desired better index to the literature of a particular pecies than a carefully prepared "synonymy", y which I mean not only the various synonyms hemselves but also judiciously selected references under each, arranged in chronological or ome other methodical sequence. For several ears past the collation of references for such a ynonymy of the birds of North and Middle America has occupied a very considerable portion of my time, during which there have been umerous occasions to deplore the absence of he scientific name in connection with some ote which records a new fact of geographic listribution, habits, or nidification. Necessarily, these have had to be passed by, since vernacular names are unavailable for citation.

It may be urged that vernacular names are itable as well as scientific names. While this s in one sense true, nevertheless it is impracticable, unless the compiler is willing to double is labor and add unnecessarily to the bulk of is book. In other words, since scientific names *must*, for various paramount reasons, be cited, the addition of vernacular names would but increase the labor of the compiler and still further complicate the typography of the synonymy.

As examples of the two kinds of records one has but to examine the pages of the January Condor. On page 19 occurs a record which I have already cited as follows: "*Harporhynchus redevivus pasadenensis*, Grinnell, Condor, ii, 1900, 19 (Azusa, Los Angeles Co., California; early nesting, etc.)"; but on the opposite page (18) are several equally important records which, because unaccompanied by the scientific names, must remain buried where they now are.

Personally, I am in favor of the use of vernacular names; but by all means let us have the scientific names also.

Robert Ridgway.

Brookland, D. C.

Early Collecting Experiences in California.

Pasadena, Cal., Jan. 25, 1900.

Editor Condor:—

I have read with great pleasure the interesting article of Mr. Lyman Belding in the January Condor. The article interests me particularly because Mr. Belding's difficulties and experiences were very similar to mine in the study of California birds. Like him, I also was in the "dark" a good many years after arriving from Germany and settling in San Francisco. I did not know any ornithologists and the only books of reference I had were German publications of Dr. Brehm (Tierleben), and of Dr. Karl Russ, which of course mentioned Californian birds but sparingly in these editions (1884). In vain I turned to the collection of birds at the Academy of Sciences for help. The chaos I found there at that time was too great, and I found more mounted canaries and European species than real California birds. These birds had undoubtedly died in bird stores. My investigations around San Francisco and in Golden Gate Park were naturally very limited, and being left to myself, some of my identifications were amusing.

It was not until I moved to Marysville, Yuba county, some years later that I received an "eye-opener." Having studied bird life about Marysville a few months and being able to identify only a few kinds, I concluded to catch as many birds alive as possible and keep them singly in cages or together in a large aviary. This had been a fancy with me since the days of my boyhood, as I liked the birds for their song and seldom cared to shoot them. So I made several traps and set them two or three miles from town in different parts of the river bottoms. I used to walk out mornings and evenings to watch the traps and take the captured birds home. In this way I caught many birds, mostly finches, of which I took good care, losing but few by death. Finally my traps were all stolen by boys, although I had put my name and address on them and requested everyone not to disturb them "for Science's sake!"

In my wanderings through the bushes I had several times met a gentleman who went out duck hunting. He would watch me curiously and no doubt thought there was something wrong with me. He soon found out what it was when we began talking to each other and I showed him an Oregon Towhee with the remark that I had just caught a Black-headed Grosbeak. He was astonished at this (it being winter) and soon set me right. Mr. P. was a great collector himself and had a fine collection of skins. He was personally acquainted with Mr. Belding and encouraged me to write to him. I did so and soon received a courteous answer and Mr. Belding's book, "Land Birds of the Pacific District", with compliments. This valuable work has been a great help to me and became to me the real "key of all keys" in the study of Californian birds. With the aid of this work and those of Ridgway and Coues (of the latter's death I read with deep regret) bird study became comparatively easy, especially as the Sacramento Valley is a veritable paradise for most of our valley birds.

Thus I was enabled to take a good many notes and write descriptions and sketches of Californian birds which I sent to Dr. Karl Russ in Berlin. He received them eagerly and published them in his paper *Die Gefiederte Welt.* I had been in correspondence with Dr. Russ before I left Germany and he urged me to study closely our California birds as a number of them were not yet fully known to ornithologists in Germany. Thus through the influence and help of Mr. Belding I was enabled to gratify Dr. Russ' wish. These lines I write only in honor of the great service Mr. Lyman Belding has rendered Californian ornithology, and undoubtedly there are others to whom he has been of the same help as to me. May he be able to long continue his valuable work!

Respectfully yours,
(Rev.) F. Reiser.

* * *

Measurements of the Santa Cruz Jay.

I would like to call attention to some errors in 'Ridgway's Manual' concerning the measurements of *Aphelocoma insularis*, which must have arisen from a scarcity of material at the time of taking them. Examination of thirty-six male and twenty-six female specimens collected by myself on Santa Cruz Island shows that there is quite a difference between the ♂ and ♀ of this species. For instance, the wing measurements are, ♂, 5.00 to 5.72, average 5.32, and ♀ 4.84 to 5.34, average 5.14, whereas 'Ridgway's Manual' gives, irrespective of sex, 5.20—5.30 (5.27). The extremes of tail measurements show ♂ 6.00—7.15, ♀ 6.00—6.60, instead of 6.05—6.25. The culmen in our series also shows great sex variation‘ viz: ♂ 1.14—1.47 (1.28), ♀ 1.12—1.26 (1.22), while the 'Manual' shows for both sexes 1.15—1.30 (1.22).

The greatest depth of bill in both sexes is .51 inches, while the least ♂ is .47 and least ♀ .44, averaging .49 and .47 respectively. The greatest breadth of bill is also the same, viz: .53, but the least is ♂ .48, ♀ .44, average .50 and .48. The extremes of tarsus are the same in both sexes as well, being 1.61—1.78, but the averages are ♂ 1.70, ♀ 1.67, 'Ridgway's Manual' giving 1.70——1.80 (1.75) inches. These corrections, except as a matter of accuracy, are of no great importance unless an *Aphelocoma* should be found upon the neighboring island of Santa Rosa which might measure differently. I was unable to land upon Santa Rosa Island myself and have seen no record of any jay from there. As this island is only four miles from Santa Cruz Island, it is exceedingly probable that *A. insularis* exists there also.

Joseph Mailliard.
San Geronimo, Cal.

Description of a New Pipilo.

RICHARD C. McGREGOR.

Pipilo maculatus falcifer[1] subsp. nov.

Subsp. char. Terminal white spot of outer tail feather considerably shorter less than one inch) than in *megalonyx*; claws much longer and heavier than in *oregonus*; under tail coverts darker than in *atratus*; rump more or less grayish, upper tail coverts tipped with pale buff.

Type. No. 2274, ♂, McGregor Collection, Palo Alto, California, April 9, 1898. Chord of wing 3.38; tail 3.75; exposed culmen .55; white tail spot .76; chord of hind claw 46. Collected by T. J. Hoover.

Type. No. 882, ♀, McGregor Collection, Palo Alto, California, March 3, 1898.

Range. San Francisco Bay region.

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[1] *falx* + *fero;* sickle-bearing, referring to the large hind claw.

* * * * * *

Eggs of the Black Oystercatcher.

The set of Black Oystercatcher (*Hæmatopus bachmani*), a photograph of which is presented herewith, was taken in late June on the island of Ascencion, off the west coast of Lower California. The species is a common resident of all the rocky islands of this coast, and has a breeding range as far north at least as the Aleutian islands. The photograph shows a typical nesting site, and is equally characteristic of Frazar's Oystercatcher, which nests as far north as the southern border of the United States.

The nests are usually but a few feet above high water, and often, as in the set which I photographed, within a foot or two of the edge of a rocky ledge. The immediate region of the nest is usually marked by quantities of empty shells of limpets which have been brought there by the birds, probably before removing the contents. In no case have I found any attempt at nest building, both species laying their eggs in a hollow in the sand or on loose rocks.

A. W. ANTHONY.

Taylorsville, Cal.

* * *

AT Otto Emerson's home in Haywards, Cal., a Rufous Hummingbird (*Selasphorus rufus*) had completed its nest on a vine overhanging the porch of the house on March 3.

* * *

WILLIAM H. KOBBE of Fort Mason, San Francisco, has received from his father in the Philippines, Brigadier-General Kobbe, a nest and eggs of *Loxia luzoniensis*, a species found only on the island of Luzon.

* * *

Some twelve active members have been added to the rolls of the Northern and Southern Divisions recently. This is perhaps the best proof possible of the activity now existing in the Cooper Club.

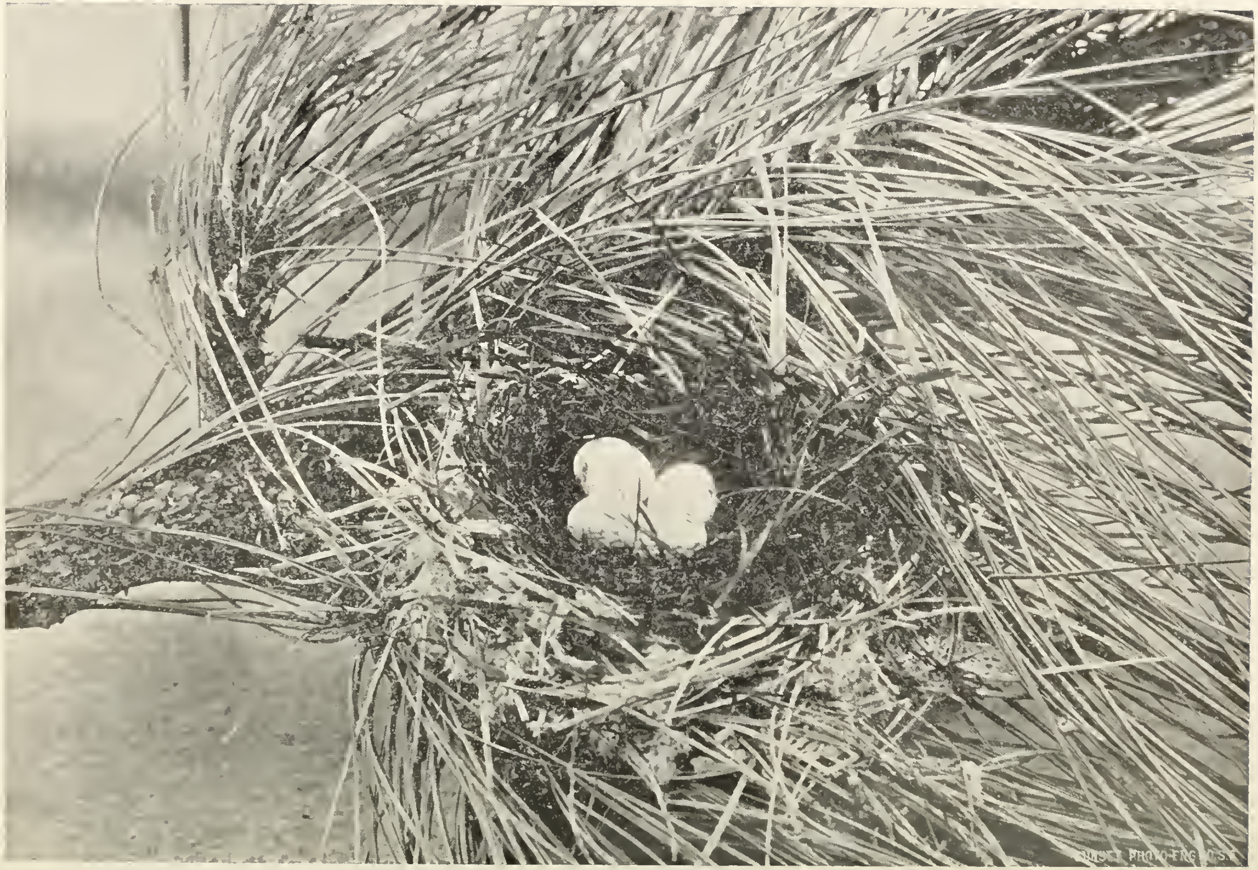

Photo by C. Barlow.

Nest and Eggs of the Hermit Warbler. (⅔ Natural Size.)
(*Dendroica occidentalis.*)

Nest and Eggs of the Hermit Warbler.

(*Dendroica occidentalis.*)

The accompanying plate of the nest and eggs of the Western Warbler is presented with the hope that it may interest those who may have specialized in the extensive and interesting warbler group. The photograph claims no special merit from a scientific standpoint, but is perhaps the first nest and eggs of *Dendroica occidentalis* to be published.

This nest and eggs was the second recorded set of this species, the first known set having been taken by Mr. Beck in El Dorado Co., Cal. in June, 1896, while the present one was collected by myself in about the same locality on June 14, 1898. As the set has been described at length (*Auk* XVI 159) repetition is unnecessary. The illustration serves to show the position of the nest upon the pine limb, on which it merely rested, not being fastened at any point. I quote the description from the article referred to: "It is very prettily constructed, the bottom layer being of light grayish weed stems, bleached pine needles and other light materials held securely together by cobwebs and other wooly substances. The nest cavity is lined with strips of red cedar bark (*Libocedrus*) and the ends, instead of being woven smoothly, project out of the nest. The inner lining is of a fine brownish fiber resembling shreds of soap-root. The eggs were about two-fifths advanced in incubation and measured .66x.52, .68x.53, .67x.53 and .69x .53 inches. They are spotted chiefly in wreaths at the large end with varying shades of lilac, brown and chestnut."

C. Barlow.

* * *

A Provident Bluejay.

A singular incident touching upon the economy of jays and indicating a reasoning power, which I am not backward in ascribing to jay intelligence, occurred this morning (Dec. 19, 1899) as I looked through a window in the dining room. I saw a California Jay hopping on the ground about thirty feet distant, appearing at first to have an extension bill. The extra length was accounted for when I saw that the jay carried a dark object and seemed to have some dark design.

He hopped a few yards in the grass and then deposited his burden, pecking it down as if into the earth. The bird then seemed to be plucking pieces of grass and laying them on the spot. He ceased this operation in a moment, flitted toward the fence and picked or excavated another darker object from the ground in the young grass, and flew with this in its beak to a low branch. Here he transferred it to his claws and pecked at it with apparent enjoyment. I watched him until he had disposed of the kernel, scrambling at times to maintain his hold and keep from losing the dainty morsel. Dropping the unpalatable fragment he then flew to rejoin his mate or a "pal" in an acacia tree. The discarded pieces proved upon investigation to be decayed almond shell.

I had not lost sight of the spot where the jay had evidently buried some plunder to await a more convenient season, and, in fact, it was fortunately marked by a white feather on the ground. I made for the spot, taking a direct course through the window, and after a careful search, discovered where the bird had artfully hidden a prize in the grass which stood about four inches high. It was a perfect almond and was not imbedded in the earth, but neatly tucked into a little hole and hidden by blades of grass. It was not decayed and breaking a corner showed a perfect kernel.

The nut had been filched from my neighbor's yard, making my premises a recourse for stolen goods! There is reason in most things, and as the jay was hungry he did not hide away this good almond for nothing. Mr. Jay is shrewd. My explanation is that the California Jay is especially fond of nuts with a wormy flavor. He has argued from experience that lying in the damp, they mould and probably gather living delicacies of which I wot not. What simpler then, that, having tweaked off the nut from the branch, he should place it where time will do the rest, where, one day, he will dine *en regale?*

H. R. Taylor.

Alameda, Cal.

THE CONDOR.
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This issue of the Bulletin was mailed Mar. 16.

EDITORIAL NOTES.

Club Collection of Photographs We take pleasure in presenting a suggestion offered by Mr. Frank S. Daggett, one of the energetic members of the Southern Division of the Club in the matter of starting a Club collection of portraits. Everyone knows how an exchange of photographs contributes to the fraternal feeling which exists between correspondents, and the writer recalls several collections of portraits of ornithologists which are prized by their owners and which seldom fail to interest visiting naturalists.

Why not, then, have an "ornithological gallery" for the Cooper Ornithological Club? The idea need only be assented to by each member to receive an impetus. Mr. Daggett's excellent suggestions best convey the plan. He writes: "The idea is to gather photographs of parties at a time when they are active in their work, such photographs being of great interest twenty or thirty years hence. I would suggest that the CONDOR start some such movement; it need not necessarily be a 'Rogue's Gallery,' but a collection of the ornithologists of the United States and Canada, gradually extending to those of other countries. If the Club has no place for such a collection where it could be accessible at all times, it would be an easy matter to find a large scientific body to act as custodian, but I think the Club the proper custodian."

Now let the Club members give voice to their ideas in the matter. Where shall the collection be kept if begun, and will each reader of the CONDOR help on the effort by the donation of a portrait? Were each member of the Club to respond, we would immediately have nearly 100 photographs as a nucleus. Mr. Daggett's suggestion is a timely one and should be met with a hearty response, as it involves but little trouble on the part of each individual.

An "Exchange Bureau." Several years ago our fellow-member, Mr. John W. Mailliard of San Francisco, proposed the formation of an Exchange Bureau as a means of promoting the exchange of specimens among Californians. The idea was a feasible one, but through insufficient organization in the Club at that date, nothing came of the suggestion. With the present perfect working organization of the Club and its ability to thoroughly represent each and every member in any matter of mutual welfare, there is no reason why an Exchange Bureau of permanent value to the Club's members cannot successfully be organized.

Such an organization could be conducted with proper dignity and in a business-like manner, and would serve to promptly fill many wants, whereas such gaps now remain open until a chance exchange supplies what is wanted. It would result, too, in more exchanging being done in California, and the subsequent upbuilding of western collections. To inaugurate the movement any member or officer of the Club could be selected to act as manager of the Bureau, and to him each member would, at stated periods, be asked to mail a list of specimens he could offer in exchange as also his list of wants. The descriptions in skins should be explicit, such as "Rufous-crowned Sparrow, ♂ or ♀, Thurber's Junco, ♂ juv.," etc. Upon the receipt of all lists the manager would combine them into a printed sheet, each list of wants and exchange material to be printed over the name and address of its sender.

This completed list would then be mailed to each Club member who would know to a nicety just what material was obtainable at the time, and also if his surplus specimens were desired by anyone. Correspondence would then follow directly between parties interested, and without further effort to the Club. Thus would an Exchange Bureau operate, and the lists might be compiled and sent out twice a year at a very small expense to the Club. Is the idea worth trying? We think so. Now that the organization of the Club has been so perfectly established, let us begin to inaugurate some of the many possible meritorious movements which will directly benefit members and cause them to value their membership the more. The inauguration of the Exchange Bureau idea rests with the members of the Club.

It is seldom that the vandals who supply the millinery trade with bird skins ply their vocation openly, but such a person has come to light in the form of W. B. Caraway, "Bird Man," Alma, Arkansas. Mr. Caraway under the pretentions of dealing in song birds sends out a circular, at the end of which is a paragraph reading: "We can furnish birds skins and skins of small animals (native) for taxidermists and *millinery purposes in large quantities at reasonable prices.* Located in the South, we are in a position to furnish almost all kinds of native birds." If there are any peace officers in this portion of Arkansas, and any statutes protecting song or other birds, it would appear that here is an excellent opportunity of gathering in a brazen violator of the law, who does not respect the common property and rights of others.

The *Western Ornithologist*, dated Vol. V, No. 1, January-February 1900, has made its appearance and announces itself as a continuation of the *Iowa Ornithologist*, formerly edited by David L. Savage, who now becomes associate editor, while Chas. C. Tryon assumes editorial control, the publication being issued from Avoca, Iowa. The initial number is a very creditable one in every way, consisting of 24 pages of text, printed on coated paper with an appropriate cover, and very similar in make-up to the current ornithological magazines. The leading article is on "The Plumage of the Bluejay," by Morton E. Peck. Five other interesting articles of length, several illustrations and short notes complete the issue. The publication makes a promising start, and will, we trust, prove a permanent organ for workers in the Middle States.

* * *

Book Reviews.

Bird Notes Afield. By Chas. A. Keeler, pp. 1-233, with appendix and key 237-353, Elder & Shepard, San Francisco. $1.50 net.

In the present work Mr. Keeler has given the public a series of entertaining essays on the characteristic birds of California, and has done it so cleverly that even those who are wont to judge bird literature by its scientific aspect alone must follow Mr. Keeler's sketches afield with keen pleasure. The author states in the preface that the work has not been written for scientists, but the descriptive talks bear evidence of the author's intimate knowledge of technical ornithology, for the work is commendable in being at once a popular treatise, yet everywhere marked with accuracy of descriptions.

Bird Notes Afield consists of thirteen essays, under titles such as "A First Glance at the Birds," "Patrolling the Beach," "A Trip to the Farallones," "March in the Pine Woods," "Nesting Time," etc., each chapter covering concisely the birds which a beginner would most likely meet in the surroundings described in the chapter. Each essay is descriptive of experiences and impressions which every ornithologist has enjoyed in counterpart afield, and the work therefore becomes one which we can appreciate. The author states in his mention of the nest-building of Anna's Hummingbird (p. 200) that "both parents labor upon the home." This statement will be questioned by many observers who have failed to detect the male bird assisting in the construction of the nest.

An artificial key to the land birds of California occupies the remaining 116 pages and is most creditable in its arrangement, and by its use the beginner should be able to identify many of our common birds at least. In the key the distribution of species has wisely been fixed chiefly from Belding's Land Birds of the Pacific District. The volume with its key, completes one of the ablest initiatory works on California birds that has been given the public, and those who are seeking a work of this scope will not be slow in according Mr. Keeler's book the recognition it easily merits.

C. B.

Loomis.—California Water Birds, No. IV.* This is a continuation of Mr. Loomis's observations on the water birds off the coast of Monterey County. Twenty-five pages are taken up with a detailed "Calendar" or diary of daily observations made from Sept. 18 to Nov. 14, 1896. Special notes were made on any phenomena which might bear on the subject of migration. Six pages at the close of the paper are devoted to a briefly annotated list of the species detected. Binomials, alone, are used in this list, the third or subspecific names of the races being omitted. A notable addition to the list of North American Birds is here for the first time recorded; viz., Buller's Shearwater (*Puffinus bulleri*); a ♀ "perhaps a young one," was taken by Mr. Loomis six miles west of Point Pinos, Nov. 6, 1896. It is the fourth specimen known to science, the other three having been obtained in "New Zealand seas."

Under the head of "Conclusions" comes thirteen pages constituting the important part of the paper, which is, in fact, an essay on migration. Mr. Loomis here sets forth his views on the method and causes of migration, and the evidence or data on which these are based. The subjects are simply and clearly presented, yet condensed so as to be entirely devoid of superfluity. Abundant references in the footnotes attest Mr. Loomis's familiarity with literature pertaining to the questions in hand, and the whole matter is evidently the results of long and careful study. The present reviewer is not sufficiently well informed on the subject to be able to intelligently discuss this article, and he can do little but touch on one or two points which happen to appeal to him.

Under the heading "Guidance by Physical Phenomena," observations are cited of migrating Shearwaters becoming apparently bewildered when the land was hidden by a fog, and of their immediately resuming their way when the fog was dispelled sufficiently to reveal the land-marks. Local species which were familiar with the neighborhood did not evince this bewilderment, but seemed to keep their bearings. "Perhaps those moving at considerable elevation are guided by the mountain tops which rise above the low vapors." In the case of migrants over the sea "currents and winds may possibly be the directing phenomena." "These directions seem to prove: 1. That the Shearwaters off Monterey find their position and shape their course by the land-marks; 2. That birds do not possess a mysterious superhuman faculty for determining direction, else the Shearwaters would not have been bewildered in the fog."

Taking up the subject of "Guidance by the Old Birds," Mr. Loomis concludes from his observations that in early southward movements of birds, those to lead the way are adults, and not young, as attested by previous writers. He claims that the birds-of-the-year which are commonly the first to be seen, are simply young, weak-winged travellers which have dropped out from the advance-guards. These latter consist mainly of adults, such as have failed to procreate, or where one of the parents has been left to care for the young, and the other has migrated early. Older birds also bring up in the rear of the migrations, so that the young are simply following their elders, who know the way because they have travelled it.

A discussion of the "Causes of Migration" ends with the summary: "It is held that bird migration is a habit evolved by education and inheritance which owe their origin and perpetuation to winter with its failure of food." One of the points which seems to be emphasized is that migration is *not* accomplished through any superhuman faculty or intuition which we do not have and consequently cannot comprehend; "the causes of migration are simple facts."

It is obvious after reading this paper that some of Mr. Loomis's conclusions are based on rather meager data from a limited locality. But they are apparently logical, though much further evidence is required for their satisfactory establishment.—J. G.

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*Proc. Cal. Acad. Sci. Third Series. Zoology, Vol. II, No. 3. With one plate (a map). Issued Feb. 12, 1900. By Leverett M. Loomis.

Official Minutes of Southern Division.

JANUARY.

The Division met Jan. 31 at the residence of Mr. H. S. Swarth in Los Angeles with nine members present, Messrs. Morcom, Hahn, Newkirk, Rivers and Rowan were present as visitors. Mr. Grinnell proposed the names of Dr. Newkirk and Mr. Hahn of Pasadena and Mr. Rivers of Los Angeles for membership. A bill for $4 for half-tones was ordered paid. Papers on the "Nesting of the Mexican Wild Turkey," by O. W. Howard, and "The Little Brown Crane" and "The Red and Northern Phalaropes" by Joseph Grinnell were read. Adjourned.

FEBRUARY.

The February meeting was held at the residence of Mr. W. B. Judson, Los Angeles, Feb. 28, Mr. Daggett presiding. Howard Rivers of Los Angeles, B. F. Hahn and Dr. Garrett Newkirk of Pasadena were elected to membership. Mr. Grinnell proposed the name of Burnell Franklin for active membership. Three papers from the Northern Division were read, consisting of a report on the work of the *Bulletin* for 1899 by C. Barlow; "Notes on *Rallus obsoletus*" by Ernest Adams and "Story of the Life of *Chondestes grammacus strigatus*" by W. L. Atkinson. Adjourned.

HOWARD ROBERTSON, Division Secretary.

Official Minutes of Northern Division.

MARCH.

The Division met at the home of W. Otto Emerson at Haywards, March 3, President Emerson in the chair. The following members were elected to active membership: Chas. A. Nace of Santa Clara; E. H. Skinner of San Jose; Lloyd T. Stephenson, Vinton, and Chas. S. Thompson, Stanford University. The names of John J. Williams of Applegate, Placer Co., and E. A. Goldman of Delano were proposed for membership. Donald A. Cohen and Senator F. K. Taylor were appointed a committee to draft resolutions favoring the preservation of the Big Trees by the Division, and to forward same to Washington. Mr. Grinnell of the Southern Division was present and outlined the work accomplished by him in the Kotzebue Sound region last year, and which will be published as a memoir by the Club during 1900. Two papers were read: "Bird Friends Condemned Without a Trial" by John J. Williams, and "A Night on Land" by A. W. Anthony. Adjourned to meet at Palo Alto May 5.

Publications Received.

Keeler, Chas. A. Bird Notes Afield. pp. 353. (See review.)

Shufeldt, Dr. R. W. Notes on the Mountain Partridge (*Oreortyx pictus*) in Captivity. Extract from Ornis Bulletin du Comite Ornithologique International. Paris, Nov.-Dec., 1899, p. 71-76. One plate.

The paper is based upon some twenty living birds of this species secured from California and kept in confinement at Washington, D. C., but deals more particularly with a single male bird which Dr. Shufeldt kept at his home for the purpose of study. A majority of the birds did not thrive, owing to adverse conditions, and showed little of the activity of wild life, but under proper conditions Dr. Shufeldt considers they would do well. The paper observes that "the two feathers constituting the plume are kept in contact for their entire lengths at all times and in all positions, giving the appearance of their being but one of them." A page photographic plate taken from life by Dr. Shufeldt, ornaments the paper and serves excellently to show the crest, plume and other characteristics of this magnificent quail.

THE CONDOR.

Bulletin of the Cooper Ornithological Club.

A Bi-Monthly Exponent of Californian Ornithology.

Vol. 2. No. 3. **Santa Clara, Cal., May-June, 1900.** $1.00 a Year.

In the Breeding Home of Clarke's Nutcracker.

(*Nucifraga columbianus.*)

AN ACCOUNT OF THE TAKING OF ITS NEST AND EGGS IN UTAH, MARCH, 1900.

BY H. C. JOHNSON, AMERICAN FORK, UTAH.*

[Read before the Northern Division of the Cooper Orn. Club, May. 5, 1900.]

BEFORE describing the finding of the nests and eggs of this species in the Wasatch Mountains of Utah in March of the present year, it may be interesting to review, briefly, the early history of the bird, with such remarks as are pertinent to the little-known nesting habits of the species, and the present known sets in collections.

Lewis' and Clarke's Expedition was responsible for the discovery of three birds new to science; the Louisiana Tanager (*Piranga ludoviciana*), Lewis's Woodpecker (*Melanerpes torquatus*), and Clarke's Crow (*Nucifraga columbianus.*) This expedition in charge of the two officers of the United States Army whose names it bore, was sent out by the Government in 1804-6. It explored from sources of the Missouri River, across the Rocky Mountains and down the Columbia River to the Pacific Ocean. The first mention ever made of the bird whose name heads this sketch is found in the journal of Capt. William Clarke. It reads: "On the afternoon of August 22nd, 1805, among the woods I observed a new species of woodpecker (?), the face and tail of which are white, wings black, and every other part of the body dark brown and its size was that of a robin." A singularly incorrect description of the bird and its size! From one specimen, — the only one brought back by the expedition—Alex. Wilson formally described the species in his *American Ornithology* III, 1811, on page 29, and figures the bird quite correctly in plate XX, Fig. 2, naming it after Capt. Clarke. The type specimen was deposited in Peale's Museum in Philadelphia, then the foremost museum in America.

H. C. JOHNSON,
WHO SECURED THE NUTCRACKERS' EGGS.

The breeding habits of Clarke's Nutcracker remained a secret for many years, the first authentic sets being those taken and recorded by Bendire from Camp Harney, Oregon, as follows: April 22, 1876, one nest with one young bird and two chipped eggs, twenty-five feet from the ground in a large pine tree; April 4, 1878, same locality, nest and three incubated eggs. Thrown to ground and lost. In a pine tree forty feet from the ground; April 8, 1878, nest and two eggs with large embryos. In a pine sixteen feet from the ground. All the nests were at an altitude of from 5,000 to 5,500 feet. Ten years later Mr. Denis Gale of Gold Hill, Boulder Co., Colorado found a nest on March 5, 1888 in a scrubby pine eight feet high containing three eggs. On April 16, 1889 he found another nest and three eggs in a pine nine feet high at an altitude of 8,500 feet. The first set is now in the National Museum. Capt. B. F. Goss found nests with young in Colorado in 1879, but the only nests and eggs recorded up to this year were the four already mentioned.

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*I am indebted to Miss Jean Bell for valuable notes concerning the early history of Clarke's Crow, as well as the record of the sets of this species previously known to science.—H. C. J.

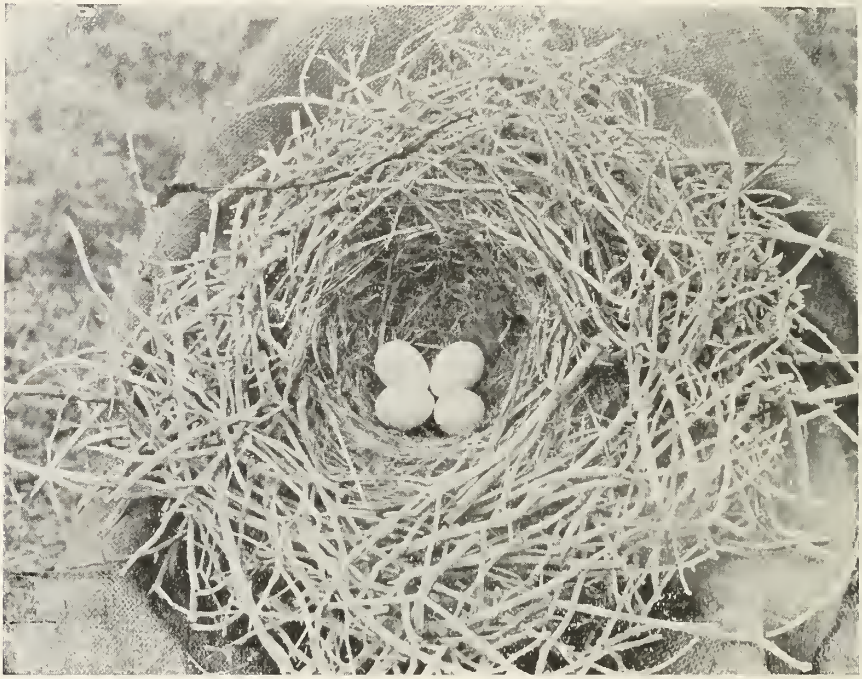

Photo by W. H. Parker.

NEST AND EGGS OF CLARKE'S NUTCRACKER (*Nucifraga columbianus*)
Wasatch Mts., Utah, March 1900.

I have been trying to obtain nests and eggs of this species for several years and with this end in view, have secured the services of various intelligent campers and miners who are at home in the hills. I had a mounted specimen of the bird which I used to show prospective collectors as a sort of object lesson. I am indebted to Miss Jean Bell of Pennsylvania for specific and intelligent notes on the life history of Clarke's Crow which definitely fixed the breeding time for Utah in a mild year, and ultimately led to the taking of the nests and eggs.

The several expeditions which I have sent out have met with the varying results detailed below. The Olsen-Ambrose expedition to the Tintic Range during the third week in March 1899, reported birds mated. Two were shot, but only one secured,—a female in full breeding plumage. One old nest was found in a black balsam tree on a horizontal limb three feet from the trunk, and was supposed to be of this species. One bird was observed chasing a Golden Eagle in a manner similar to that of blackbirds worrying a passing hawk. The Ambrose-Olsen-Johnson expedition to Springville Canon and Strawberry Peak in April 1899 was unsuccessful on account of snow, though small flocks and single birds had been reported in the vicinity in the fall of 1898 and the winters of 1898 and 1899. Following this came Hines' three days' trip in March, 1900, to the head of American Fork Canon. Several birds were seen but were very wild and shy.

Adams in the vicinity of Pleasant Valley Junction reported birds in some abundance in early March, 1900, and breeding. Hines of American Fork Canon reported the birds common, excepting in breeding season. They are usually in flocks and are noisy, bold and rapacious. Living in a two-story house, a relic of the once prosperous days of the Miller mine, he once set some rat poison baits on the second floor near the stairs. Returning after a short absence he found several dead "Camp Robbers" which had flown upstairs to get the bait. He once caught a bold fellow in his hand while eating dinner. It struggled, as Mr. Hines thought, to get away, but happening to put his other hand containing some bread near it, the bird rapidly ate until it could hold no more.

The Dunsden-Wilkin expedition to the mountains north-west of American Fork Canon, Utah Co. March 15-31, 1900, proved to be successful. This party secured a nest with one egg, capturing the male parent on the nest by hand, and also a nest and four eggs and later a nest with three young and parent. The first nest containing one egg was found March 23 in a black balsam tree about fifty feet high in the pronged fork of a limb growing outwardly, and then upward. The nest was about three feet from the body of the tree and sixteen feet from the ground. The nest was in rather plain view though overhung with a thick canopy of dense boughs. The situation was about 7,000 feet altitude and about 1,000 feet below the ridge of the mountain on the side of a sheltered gulch facing the south.

The nest and four eggs were found March 23, 1900, about 1,000 feet from the first nest and was also in a black balsam tree 70 feet high and thirty inches in diameter at its base. The nest was thirty feet from the ground, saddled on a horizontal limb about seven feet from the body of the tree. This nest could only be seen from one position on the ground. The set was collected on March 28. Many attempts were made to secure the parent alive, but it always left the nest as the collector had his hand nearly upon it. The nest contained four eggs when found and after five days had elapsed, incubation appeared but slight. March 28 the final attempt to secure the parent was made, but without success. As she left the nest Mr. Wilkin shot at her, but missed. The set was then secured with nest.

It will thus be seen how extremely uncertain is the finding of the nests of Clarke's Crow in any locality. Where the birds are plentiful one year they are absolutely wanting the next, owing to absence or presence of food supply. Roaming over the country in bands, stealing, prying, inquisitive, noisy "soldiers of fortune," they become locally known as "camp robbers," "pinon bird" or "mutton bird." Some one of these names will be instantly recognized by anyone who lives at various seasons in the hills of Utah. It is partly on account of this nomadic tendency and partly because they breed so early, while the ranges are enveloped in mantles of deepest snow, that their nests are so difficult to locate. In fact, the absence of snow this season,—an unusual one here—is what rendered progression over the hills possible and the locating and taking of the eggs a possibility.

In their noisy, roving rambles the Clarke's Crows are singularly like another rare bird,—the Carolina Paroquet of Florida and southern border states. James Preston of this city has often told me how an immense flock of Nutcrackers in the Deep Creek country of western Utah, by suddenly taking wing and making voice, actually stampeded a herd of cattle which he was driving. Mr. Nelson and others tell me that in the Tintic Range, in early March, he has seen companies estimated at "several hundred."

The eggs of different sets vary considerably in size. Mr. Gale's Colorado sets measure respectively (Set 1) 1.37x90, 1.36x.89, 1.32x.89; (Set 2) 1.34x.90, 1.37x.91, 1.39x.92 inches. Major Bendire's Oregon sets are smaller, measuring: (Set 1) 1.22x.95, 1.20x.90; (Set 2) 1.26x.95, 1.30x.92 inches. The four eggs in my first set are elongate-ovate in shape; the ground color is of the clearest pale green, covered with small flecks and spots of lavender and brown. These small spots are distributed over two-thirds of the largest ends of the eggs, the pointed ends being almost the plain ground color. There is no tendency to a wreathing of the markings, nor is the primary greenish ground hidden to any extent by the minute spots. The eggs are rather thin shelled, smooth, glossy and closely grained and measure 1.39x99, 1.38x98, 1.38x.97 and 1.34x1.00 inches. The first three eggs are of the elongate type while the fourth is more obtuse and broader, as will be seen by the measurements. Taken altogether I consider the eggs, as seen reposing in their cumbrous nest bed of juniper bark strips, with a framing of matted juniper (*Juniperus occidentalis*) twigs, a very beautiful type of birds' egg. The one egg taken March 23 measures 1.33 94 inches.

On March 31, 1900, my same collectors found a nest containing three young birds about three days old. The parent was easily caught by hand and placed on the edge of the nest while he examined the nestlings. She remained there the whole time, thus evincing a wonderful example of maternal love for her offspring. The nest, young and parent were collected April 13, the male parent being shot on returning to the nest. On examination by the writer, the throat of the adult bird appeared to protrude to a great degree and on opening the bill it was found to be literally packed with the small seeds of the pinon pine, carefully cleaned from the shells, and no doubt intended to be exuded for the benefit of the young, which were very fat and evidently thriving on the diet. All of the above sets, nests and birds taken by my collectors in Utah this year are now in the collection of Miss Jean Bell of Ridley Park, Pennsylvania.

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The Woodpeckers of the Upper Salinas Valley.

BY CHAS. S. THOMPSON, PASO ROBLES, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Jan. 6, 1900.]

FROM the northern boundary of San Luis Obispo County south to the source of the Salinas River, the country is known as the upper Salinas Valley. It is rolling, and white oaks of two species are the most plentiful trees in the hills, while cottonwoods are the characteristic trees of the river bottom. With such a combination it is not at all strange that woodpeckers are plentiful both as regards numbers and species. In three seasons' collecting in the upper Salinas Valley I have taken the eggs of five species of woodpeckers, as follows:—Gairdner's (*Dryobates pubescens gairdnerii*) Nuttall's (*Dryobates nuttali*), Californian (*Melanerpes formicivorus bairdi*) and Lewis's (*Melanerpes torquatus*), besides the Red-shafted Flicker (*Colaptes cafer*) Of the six species all but the Red-breasted Sapsucker (*Sphyrapicus ruber*) are residents, both winter and summer. The sapsucker, however, is seen only during the winter and is never common. Cabanis's Woodpecker (*Dryobates villosus hyloscopus*) may also be found here sparingly, but as I have never yet seen it, I shall not include it in this paper.

I have taken eggs of all the resident species and all of them breed abundantly. The first, Gairdner's Woodpecker, hunts a mate about the first of April, and by the first of May the nest hole is finished and egg-laying commenced. The nest hole is generally dug in dead and well rotted trees, from two to twenty-five feet from the ground. Cottonwoods are the favorite trees but occasionally willows and even fence-posts are favored. In the posts the nesting sites are very low,—two to four or five feet from the ground. A nest found on May 18, 1898 was only two feet from the ground and the hole was about eight inches deep, so that the bottom was not more than sixteen inches from the ground. This nest contained three young just hatched and one infertile egg. On the other extreme, a nest found in May, 1897, was twenty-five feet from the ground in a dead cottonwood and contained nothing, although the hole had been dug for three weeks and the birds had occupied it all the time.

Another nest found May 2, 1897 contained five fresh eggs. The entrance was about fifteen feet from the ground in a cottonwood stump. The hole was ten inches deep and the female did not leave until I had nearly chopped open the cavity. Last season I took two sets, 1/3 and 1/6. The set of six was taken May 1 from a hole four feet from the ground in a cottonwood fence post. After I had enlarged the entrance I saw a bird at the bottom and instantly took it to be a young one, but on investigation I found it to be a female. She would not leave her eggs and I had to remove her while she pecked at my fingers, drawing blood at every blow. I put her in my pocket and felt amply repaid by finding a set of six fresh eggs. The set of three eggs was taken May 3 from a hole eight feet up in a dead cottonwood. The eggs were almost fresh and the female was incubating. This little woodpecker makes more nests in a season than it can use in five, and these extra holes, which are generally shallow, are resorted to by bluebirds, wrens and swallows. The male digs the extra holes while the female is incubating. The male is quite fearless and will allow a person to approach very close to him and will often make for other woodpeckers who visit his locality, in an endeavor to drive them away.

Nuttall's Woodpecker (*Dryobates nuttalli*) is next. I did not observe this species breeding until 1899 when I took five sets of eggs. It is very similar to Gairdner's Woodpecker in habits, laying from three to five eggs. The species is an early breeder and begins laying about the 15th of April or even earlier. A set of five taken on April 20 were very slightly incubated and were taken from a hole about seven feet up in a live alder tree. The male bird was on the eggs and left only after I had commenced chopping. The cavity was about one foot in depth. On the 22nd of April I took two sets of eggs of this species, one of three and one of five. The set of three was taken from a nest thirty feet from the ground in a dead cottonwood and the eggs were slightly incubated. The female was on the nest and the male was near by drumming on a dead limb. When I came back in the afternoon I found the birds had commenced another nest a few feet from the one I had robbed.

The set of five was taken from a hole in a cottonwood stub twelve feet up and were well incubated. One of the eggs of the set is remarkably long and narrow. The next day, April 23, I took another set of eggs of this species. The hole was twenty feet from the ground in a dead cottonwood, and the female flushed when I struck the tree. The nest contained three fresh eggs. My fifth set was taken May 1 and consisted of four eggs, which have little, rough knobs on them, much after the style of lumps on some cormorants' eggs. Incubation had commenced and the female had to be removed from the nest which was in a live cottonwood seven feet up, the cavity being nine inches deep. My observations on this species tally closely with those of Gairdner's Woodpecker.

The Californian Woodpecker (*Melanerpes formicivorus bairdi*) is the most abundant species on the list and frequents the oaks more than the cottonwoods. The species also pecks holes in houses and fills them with acorns. It has apparently found out that redwood cornices are easier to work on than oak trees. The Californian Woodpecker mates very early and must rear at least three broods in a season, for I have found their eggs in April badly incubated, and again found young late in August. The male bird does most of the work of excavation and the nests are nearly always in living white oaks, where they are difficult to reach, but dead cottonwoods are used occasionally. From three to six eggs are laid, generally four or five, and both sexes incubate, the eggs hatching in about two weeks, which is the incubation period of most of the woodpeckers of this locality. Gairdner's Woodpecker requires twelve days as I found out by observation.

A set of five Californian Woodpecker's eggs taken April 23, 1899, were in a hole in a cottonwood twenty-seven feet up. The male was setting and I almost caught him, but as it was he sat on a limb of the same tree and surveyed me. These eggs were fresh and of a delicate pinkish tinge before blowing. Another set of four taken the same day from a nest fifteen feet up in a dead cottonwood were badly incubated. May 1, I took a set of six eggs of this species from a hole twenty feet up in a living white oak which were badly incubated, but by the use of pancreatin I saved them, much to my satisfaction, as I have never taken another set of this size.

Lewis's Woodpecker (*Melanerpes torquatus*) is found only among the oaks and it generally nests at great distances from the ground. A set of five taken April 27, 1899 were in a hole of a white oak. Lewis's Woodpecker is a shy and retiring bird and seldom utters its peculiar cry, which in no way resembles the note of our other woodpeckers. This bird flies like a crow and is difficult to secure with a gun. The eggs are four or five in number and resemble those of the Red-shafted Flicker very closely. They vary much in shape, some being similar in this respect to eggs of the Mourning Dove. Lewis's Woodpecker is known as the "Crow Woodpecker," "Black Woodpecker" and by the juveniles as the "Floating Dish-rag," but where the latter name comes from I am at a loss to know.

Our last breeding woodpecker is the Red-shafted Flicker (*Colaptes cafer*), known as the Yellowhammer and also as the Highholder. The species is plentiful at all seasons of the year and in the fall and winter they are sometimes found in quite large bands feeding upon the ground. They eat berries and other vegetable food, and in the summer injure considerable fruit, but in this depredation they have for company both Lewis's and the Californian Woodpeckers. The flicker also eats a great many ants as do all the woodpeckers, for nearly every oak tree has an ant's nest in or near it and the ants make life miserable for the collector.

The Red-shafted Flicker lays from five to seven eggs, the latter being the largest number I have ever found in a nest. The eggs vary greatly in size. Incubation begins with the laying of the first egg and a set of seven which I have, varied from fresh in two eggs to half-hatched in another. The nests are usually not far from the ground, 25 or 30 feet being the limit, while most of the nests are but ten or fifteen feet high. The excavation varies in depth from nine or ten inches to two feet and I found a nest over three feet deep in a fence post, where the birds had only stopped digging when they lost their bearings and punctured the side of the stump.

Nest building commences the last of March and full sets of eggs may be found by April 15. A set of five taken April 16 were slightly incubated and were fifteen feet from the ground in a cavity in a cottonwood tree. By the first of May this pair of birds had excavated another shallow nest and the female laid five more eggs in a tree not ten feet from the one containing the first nest. The birds are devoted to their eggs and may sometimes be caught on the nest. Two or three broods must be reared in a season as fresh eggs may be found as late as June.

I had a queer experience with a Western Bluebird (*Sialia mexicana occidentalis*) while examining a nest of this flicker. On April 23, 1899 while collecting, I noticed a dead cottonwood in the middle of a field and no other trees within 200 feet of it. As I had just taken several sets of various woodpeckers' eggs from similar situations, I thought I would examine this tree. I pounded on the tree with my hatchet, when out flew a flicker from a hole twenty-five feet up. All the bark was stripped off the tree and it was perfectly smooth and shaky as well, but I managed to "shin up," during which operation I partly dislodged a snag which projected from one side of the tree. I chopped open the flicker's nest but found it empty and as it was almost dark I decided to start for home, when I saw a pair of bluebirds flying about excitedly, but finally both disappeared.

Then I thought they probably had a nest in the tree and began to examine the various cavities but without result. Remembering seeing a hole in the end of the snag I had partially dislodged, I pulled it out of the cavity which held it and started down the tree. When I reached the ground I began to enlarge the entrance to the hole in the snag when the female flew from the hole and I was soon in possession of six eggs. This shows the solicitude of the bluebird for its eggs. The nest was composed entirely of cottonwood fibers.

The last on the list of our woodpeckers is only a winter visitant,—the Red-breasted Sapsucker (*Sphyrapicus ruber*.) They arrive about the middle of October and remain with us until March, but are not plentiful at any time, and I have never seen more than three or four in one day. They are very shy and when once shot at will not allow a person to approach close enough to shoot again. Many trees are attacked by these birds, the live oak, cottonwood, sycamore and barberry seeming to be the favorites. The bird also eats ants and insects and sometimes indulges in berries. In conclusion, we probably have as large a list of resident woodpeckers as any similar region in California, as conditions are favorable for the woodpecker tribe.

* * * * *

Nesting of the Mexican Wild Turkey in the Huachuca Mts., Ariz.

(*Meleagris gallopavo.*)

BY O. W. HOWARD, FT. HUACHUCA, ARIZ.

[Read before the Southern Division of the Cooper Orn. Club, Jan. 31, 1900.]

EARLY in the spring of the present year while walking down the wagon road in one of the main canons of the Huachuca Mountains I was very much surprised as I glanced at the opposite hill-side to see a fine large Wild Turkey walking around, feeding under some oak trees. He (to all appearances a gobbler) was fully as large, if not larger, than any domestic bird I had ever seen. Either he was not aware of my presence or else my presence did not disturb him, for he was in plain sight and not more than fifty yards distant.

I watched the bird for two or three

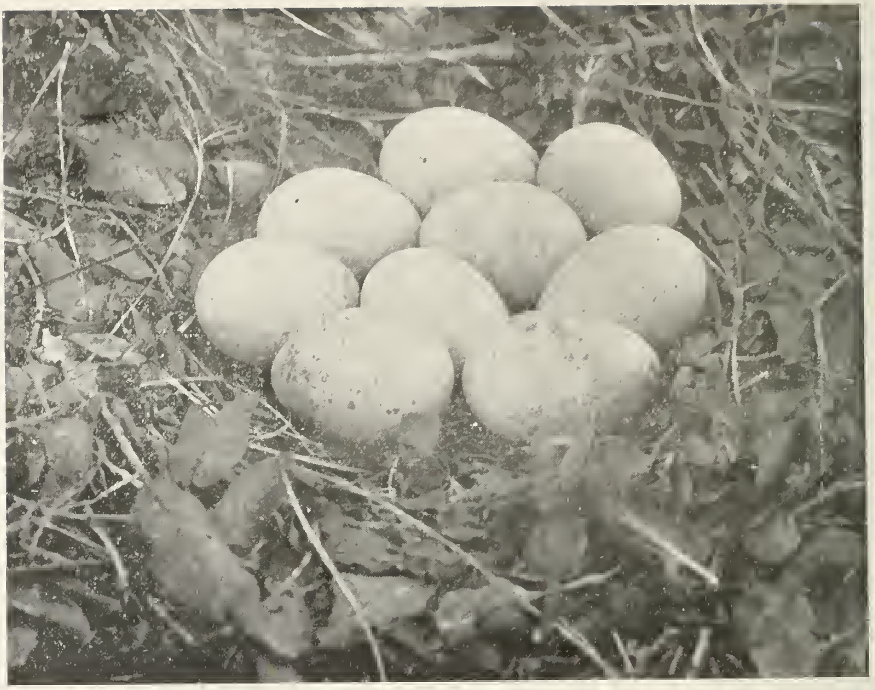
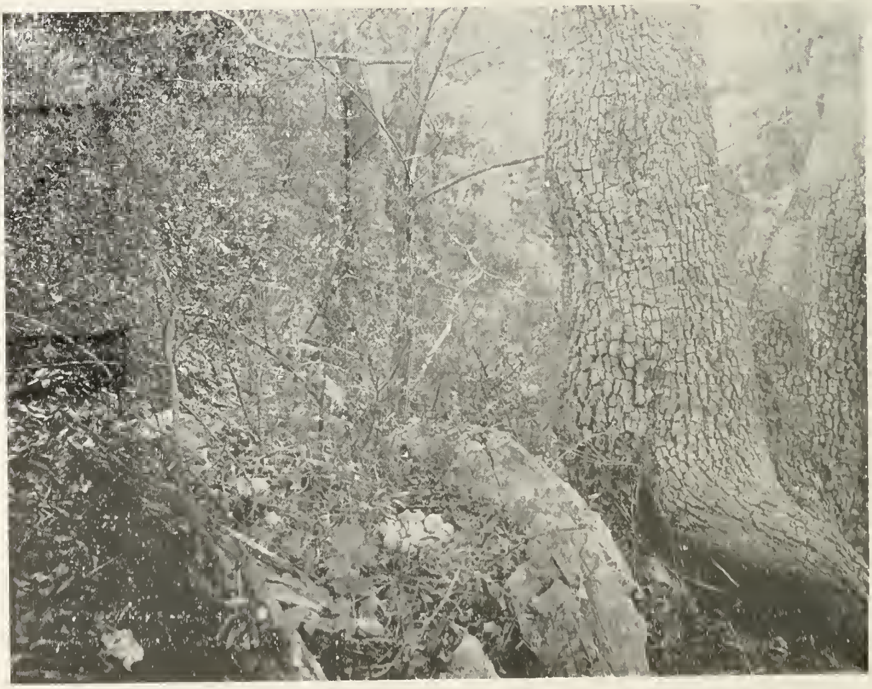


FIG. 1. NEST AND EGGS OF MEXICAN WILD TURKEY.



Photos by O W Howard

A GENERAL VIEW OF THE NEST AND SURROUNDINGS.

minutes when he finally disappeared behind some bushes. This was the first Wild Turkey I had ever seen and at first I thought it was a domestic bird that had strayed from some ranch house. As I thought the matter over my wits came back to me and I knew there were no turkeys at any of the ranch houses in that vicinity. Arriving at this conclusion, I was about to shoot, but as quickly decided not to and was afterward glad of it for I concluded there was more than one bird in the vicinity and thought I might possibly find a nest by leaving them undisturbed. For sometime I was disappointed, until one day my brother reported having seen two turkeys not far from the place where I had seen the first one.

After that the birds were seen quite often and always in the same vicinity. I believe there were only two birds in the vicinity, at least there were never more than two seen at a time. I tried to persuade various persons not to shoot the birds but was somewhat disappointed in this, for I know it is very trying to anyone who enjoys hunting to see a fine big gobbler in range without taking a shot at him, and it does not worry a disinterested party much whether turkeys ever lay eggs or not, so I knew my chances of getting a set of eggs from these two birds were rather slim.

As it happened, the life of the birds was only spared by the poor marksmanship of some of the natives, so I still had hopes of getting a set of eggs and made several searches in the locality where the birds had been seen so often. I had all sorts of pictures in my mind of the nest I wanted so much to find, but the season rolled on and by the middle of June I came to the conclusion that the eggs had hatched *and flown*, so I gave up all hopes of getting a set of eggs that season.

Imagine my surprise when, on the 1st of July, my brother handed me a fine set of nine turkey's eggs. A Mexican who was packing mining timber from the mountains was out looking for his burros one morning and flushed the old bird from the nest. The Mexican knew that my brother and I were "bird catchers" or "bug-hunters" (the terms commonly used in this vicinity for anyone interested in natural history.) So the man from the land of "Manana" told my brother about the nest and said he would let him have the eggs for "dos pesos," or in other words, $2.00. My brother knew I would be only too glad to get the eggs at that price and agreed to take them, so the Mexican took him to the nest. When they got within a few yards of it the old bird left and ran off into the brush.

The nest was in the bed of the canon at the base of the hill, in a natural depression in the soft earth at the side of a rock, and just under a large white oak tree. With the half tones, this description will hardly be necessary. The nest had a lining of leaves and small twigs, with a few feathers from the old bird scattered about. The nest was about a mile above the place where I had seen the first bird and at about 7000 feet elevation. Strange to say, the nest was within a stone's throw and in plain sight from a well-traveled trail.

Taking into consideration the fact that the bird was shot at and otherwise disturbed so often, I was much surprised to see the nest so near the trail. Possibly the bird took the precaution of placing her nest in that position so she could watch the trail and make her escape at the least alarm without being seen. The eggs were all addled and I think they had been set on for at least six weeks. Fortunately I had a cold when I blew them, so I can not say as to what per cent of "sulphuretted hydrogen" they contained. The decaying of the eggs was probably due to the bird being disturbed too often while setting, or wet weather may have been the cause of it. In taking the picture of the eggs, I placed the camera within two feet of the nest, and the picture showing the locality was taken from a point about twelve feet from the nest. Both pictures were taken after sunset.

California Jay Again.

Mr. Taylor's remarks about "A Provident Bluejay" in the March number of the CONDOR may be supplemented by some observations which perhaps will prove interesting to some of our readers. The theory that the Jay buries the nut so that it will acquire a mouldy or wormy flavor is hardly tenable. A nut buried in this manner, if sound, will not become either wormy or mouldy, but will soften up and finally sprout. Whether the bird prefers the softness or the actual sprout is hard to determine, but the fact that the Jays, both the *Aphelocoma* and *Cyanocitta* of this coast, will pull up grain, peas or corn after it has sprouted, while they but sparingly pick up any loose kernels lying upon the surface, proves that they delight in either the softness of the grain or in its sprouted state. I have had acres of peas that were sown in the end of March to be cut green for feed when large enough, practically destroyed by these birds. In fact, unless watched or poisoned, they have sometimes pulled up nine-tenths at least of the peas. Yet they do not do this every year, some seasons not doing any damage at all. It seems to depend on what other food supply may be obtainable at the time.

I remember one spring when a patch of about an acre and a half was sown with a mixture of peas and oats, and the peas were pulled up as fast as sprouted, by the jays, so that the crop consisted of oats alone. In this instance the land was bordered by a growth of trees that made a fine shelter to which the birds could retreat when disturbed. I shot over forty in one afternoon on this occasion and a good many on succeeding days, but they soon became so wary that it was impossible to get another shot after one was killed, and yet the crop was destroyed.

Some years they destroy a lot of corn, and other years almost none. But to show that Mr. Taylor is partly right about a wormy flavor being pleasing, I have found that if there are wire worms in a field of corn the jays, if they pull the corn at all, will choose the sprouted kernels that are pierced by and contain a worm. At times, however, they will pull the corn and eat the sprouted kernels when no wire worms are present in the field. As the corn coming through the ground shows no indication of worms at the period in which it is pulled up by the birds, it is hard to guess how they know which are infested and which not. I have proved that they do know how to select by shooting a number in an infested field and invariably finding that they have chosen only wormy grains.

This year the Jays, in conjunction with Towhees, Juncos and a few Flickers, badly damaged some late sown oats beside the house. I watched them with glasses from the porch. They would dig away with their bills a little earth from the stalk where it just showed through, get a good grip and pull. If the stalk broke they would try the next one. When the whole plant came up by the roots they would jump to the nearest lump of earth and pick the kernel out of the husk, leaving husk, roots and stalk lying on the lump. There were no worms in this grain at all. Shooting one occasionally would cause them all to fly to the nearest trees, but they would be at it again in a few minutes, with some on watch. Grain on the surface might have lain there a long time and they would only peck at it a little once in a while.

All this proves that they want their grain in a soft or sprouted state. On the other hand, I have seen Jays time and again carry off pieces of bread or biscuit from the yard and bury them in the grass on a hillside, keeping this up as long as the supply continued. As the bread is soft enough in the first place this must be done either to preserve it for future use or, as Mr. Taylor suggests, perhaps for the purpose of developing worms.

When the Jays are actually destroying a crop of peas or corn, I have learned to poison a good many by coating some of the grain with a thin solution of glue into which strychnine has been stirred and scattering this on the surface of the field. They will pick up a grain or two now and then, and it does not take many to prove fatal. This can only be done with large grains like peas or corn, as otherwise a great many other birds would suffer also. Even then a number of coons, skunks etc., eat the dead jays and pay the penalty. However this system of poisoning is only resorted to when a matter of absolute necessity to save a crop.

It is worthy of note that the Blue-fronted Jays, in the instance of robbing the pea fields, are as numerous as the California Jays, while two or three weeks later, or in the middle of April, the former will have nearly all disappeared, while the latter remain numerous all through the breeding season. The Blue-fronted Jays apparently scatter widely among the heavily timbered hills and breed in the thick clumps of bay, or in the tall firs and redwoods, returning with their young to the bottom lands, however, in ample time to destroy as much fruit in our small family orchards as they possibly can.

JOSEPH MAILLIARD.

San Geronimo, Marin Co., Cal.

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Nest and Eggs of the California Creeper.

Having noticed but little definite information concerning the nesting of the California Creeper (*Certhia f. occidentalis*), I submit the following notes on a nest and five eggs which were collected for me by Mr. Loren E. Taylor of Fyffe, Cal. The California Creeper is a summer resident of the redwood belt of the Coast Range of California, as also of the great pine region of the Sierra Nevada Mountains, in both of which localities it is to be classed as common. Nevertheless, the eggs have remained scarce in collections for years, owing to the fact that the nest is a difficult one to locate in the forest, and as with many other species, it is most successfully found by watching the bird carrying building material.

On April 16, 1898, Mr. Taylor observed a pair of Creepers building in a crack of a dead pine stub about three feet from the ground and six inches back from the surface. The nest with its five eggs were collected on April 30 by Mr. Taylor who kindly presented them to me. The nest was simply a mat of fine cedar bark with which was mixed a few feathers, and measures about five inches long by two inches across and a depth of one and one-half inches.

The eggs have a white ground color and are liberally spotted with flakes and confluent blotches of redaish-brown, nearest the large ends, with underlying shell markings of lavender. The eggs measure .60x.48, .58x.47, .58x.46, .57x .46 and .57x.45 inches. This set is now in the possession of Miss Jean Bell of Ridley Park, Penn. C. BARLOW.

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To those of our readers who appreciate a "thing of beauty" in typographical art, we recommend *Sunset*, a beautifully printed and illustrated magazine issued by the Southern Pacific Company monthly. *Sunset* is probably the finest printed magazine on the Pacific Coast, each number being replete with half-tones of California's resources which are entertainingly embellished by the pens of gifted contributors. *Sunset* is a pleasure to look at and to read, and those interested should address E. H. Woodman, Editor, 4 Montgomery St., San Francisco.

MR. CHAS. A. MOODY of the Southern Division has two delightful essays on the wild flowers of California in the February and March numbers of the *Land of Sunshine*, both of which reflect Mr. Moody's intimate knowledge of botany.

General News Notes.

TWO MORE EGGS OF CALIFORNIA CONDOR.

The various collectors of Mr. H. R. Taylor have, up to March 20th, been very successful in their field work. Besides thirteen sets of Golden Eagle and four sets of five eggs of the Prairie Falcon, they were fortunate enough to collect an almost perfectly fresh egg of California Condor on March 19 in Monterey Co. The nesting place was betrayed by the parent bird flying from the nest in the face of a cliff 500 feet high, the pot-hole in which the egg was laid being 350 feet from the bottom and the egg was secured by lowering the collector with a rope. The size of the hole was about sixteen inches at its entrance, opening or broadening inwardly to a chamber six feet long, 2½ feet wide and two feet high. The egg was laid on the bare sand and is ashy green in color, deeply pitted all over and, like some other specimens that have passed through Mr. Taylor's hands, has several warty excrescences on the surface somewhat larger than a pin head in size. The texture is close grained, and the egg glossy, measuring 4.44x2.66 inches. It is noticeable that these eggs lose their greenish cast within a few years after having been collected and this accounts for apparently conflicting statements in published articles on the species. From the dozen or more authentic examples now in collections it is reasonably sure that the egg of the California Condor varies in two essential particulars from those of other members of the American *Cathartidæ*. First, they are always unspotted; secondly, one egg constitutes a full set.

LATER. Since the above was written Mr. Taylor's field men have come in from another two weeks' trip in which they were successful in taking their second condor's egg of the season on March 26 from a pot-hole in the face of a sandstone bluff in San Luis Obispo Co., Cal. The egg measures 4.38x2.63. It is strong textured with a heavily glossed shell surface and the same wart-like protuberances mentioned in the first egg. Mr. Taylor's collectors also added a series of Prairie Falcons, all sets of five eggs each, one more set of Golden Eagle ½, a heavily reddish set of Duck Hawk and minor sets of hawks and owls. All these sets, including both condors' eggs, have been acquired by Miss Jean Bell of Pennsylvania.

A BRIGHT, typically Western magazine is *The Land of Sunshine* published at Los Angeles, Cal., and edited by Mr. Chas. F. Lummis. It ranks perhaps as the leading monthly of the West in many respects, aboundimg in choice stories of fiction and romance, essays on California's natural beauties and wonders, and an array of able editorial comment, all combined with a journalistic dexterity that savors of originality. Its substantial features are supplemented with a profusion of half-tones of rare subjects, which make the 60 to 70 page journal a veritable treat. The February number contains a notable character sketch of the late Dr. Coues, with recent photographs, by Mr. Lummis. The February and March issues are graced with entertaining essays on California wild flowers in midwinter, with photographs, by Mr. Chas. Amadon Moody, while the April number contains some remarkable photographs of living wild birds by Elizabeth and Joseph Grinnell, together with appropriate text. Many features of *The Land of Sunshine* appeal directly to the nature lover, and its many praiseworthy elements all go to round out a distinctly bright journal. Los Angeles, Cal., $1 a year.

THE appearance of the *Proceedings of the Nebraska Ornithologists' Union* brings to prominent notice the association of Nebraska ornithologists which will be known as the Nebraska Ornithologists' Union. On Dec. 16, 1899, the organization of the society was accomplished and the following officers elected: Prof. Lawrence Bruner, President; I. S. Trostler, Vice-President; Dr. R. H. Wolcott, Recording Secretary and W. D. Hunter, Corresponding Secretary. The *Proceedings* of the Union consist of a complete report of the first annual meeting and embraces forty-four pages in which are found the constitution and by-laws of the Union and nine papers of value read before the meeting. The whole is neatly printed on heavy book paper and forms a report that would do credit to a much older organization. It is to be hoped that this association of Nebraskan ornithologists will do much to increase our knowledge of the avifauna of the region, and judging from the excellent commencement, this bids fair to be carried out to an unexpected degree.

Another notable Californian egg collection has recently passed out of the state, it being in this instance the collection of Mr. Henry Ward Carriger, formerly of Sonoma, Cal. It has followed the pathway of several other western cabinets and Miss Jean Bell of Ridley Park, Penn., becomes the fortunate possessor, thus adding one more complete collection to her already magnificent museum. Mr. Carriger's collection contained many choice individual sets as well as valuable series, all personally taken by him in the vicinity of his former home. One set deserving of especial mention was 1-6 California Pygmy Owl (*Glaucidium gnoma californicum*) taken near Sonoma. Mr. Carriger's ability and success in the field was manifest throughout the choice collection.

The *Auk* for April records the death of one active and three associate members of the A. O. U., who were well known to many workers on the coast. George B. Sennett, an active member, died March 18 at the age of 59 years. Francis C. Browne of Framingham, Mass., passed away in January at the age of 70, while John A. Dakin of Syracuse, N. Y. and Foster H. Brackett of Boston each died after a brief illness. Mr. Brackett was very favorably known to many Californian workers through his cordial correspondence and finely-prepared bird skins, many of which grace Californian cabinets. He had in process, previous to his death, an extended list of the birds observed about Boston, which, it is to be hoped, will be secured and published.

On behalf of the American Ornithologists' Union, Mr. Abbott H. Thayer has addressed to the public, through the press, an appeal for funds to protect from slaughter the gulls and terns of the Atlantic Coast. He recounts their valuable work as scavengers in the harbors, and states that already their ranks have been decimated by the plume hunter. Those who are willing to contribute to a fund for the protection of the gulls and terns are requested to address Wm. Dutcher, Treasurer, 525 Manhattan Ave., New York City.

Mr. H. B. Torrey, a member of the Cooper Club, who has been studying at the Columbia University in New York, has been appointed a Fellow in the Department of Zoology in recognition of his ability. Mr. Torrey's home is at Berkeley, Cal.

At the meeting of the California Academy of Sciences held in San Francisco April 16, Mr. Joseph Grinnell gave a general talk on "Birds of the Arctic in Midwinter."

Under the editorship of Mr. Reginald Heber Howe Jr., of Longwood, Brookline, Mass., has appeared a neat four to six page publication entitled *Notes on Rhode Island Ornithology*, devoted, as its title implies, to notes on, and records of Rhode Island birds. The publication is a neat one and full of valuable data judging from the January and April numbers at hand. The paper will be published as a quarterly.

Land Birds of Marin County, Cal.

BY JOS. MAILLIARD, SAN GERONIMO, CAL.

Among the many counties in this large state, Marin county occupies a somewhat unique position, its situation being similar to only one other. This is San Francisco county, which being very small, covering not much more than the city limits, cuts but little figure ornithologically. Marin itself is one of the smallest counties in the state, yet it has a considerable area, being somewhat in the shape of a diamond with the longer diagonal about forty-three miles and the shorter thirty.

The peculiarity of its position lies in the fact that on three sides of the diamond is salt water. Three-fourths of its boundary is coast line, the actual contour of the shore probably making it more than five-sixths of the total. The western and south-western sides are washed by the Pacific Ocean while San Francisco Bay limits the eastern. As its short northern side is not near any large valley or river it is practically cut off from any direct natural line of north and south migration. All birds flying into the county from the south have to cross San Francisco Bay, while those migrating south must cross it when they leave. In consequence of this those birds which do not make long, strong flights seem only to wander in from their regular routes more in the manner of stragglers than of regular migrants.

For instance, the big flight of Louisiana Tanagers in 1896 which was notable throughout the state, only touched this county to a slight extent, but very few birds having been noticed. Yet many of the regular immigrants must cross the bay, for at the period of the first spring migrations, they are seen in the southern part, where it is warmer, sometimes two or three weeks before they arrive in the interior. These first arrivals apparently come over from San Francisco or Alameda county. It is possible that some birds, like the *Helminthophila c. lutescens* for instance, may come in from Sonoma county on the north and follow the warmer bay shore until they reach the southern extremity of Marin county before venturing into the interior, but there are no observers in the right spots to determine this.

The county is for the most part exceedingly hilly, almost mountainous, and a large proportion of its area is covered with either timber or brush. Of the timbered areas there are three divisions; the redwood, which is intermingled with and runs into fir, bay, madrone etc.; the pine and the oak regions. Each has a bird life peculiar to itself, yet there are certain birds common to all. The redwood region and immediate vicinity contains by far the majority of *Cyanocitta s. frontalis*, *Certhia f. occidentalis* and *Anorthura h. pacificus* for instance. The pine region harbors the *Sitta pygmæa* almost exclusively, while the oak region, which is like parts of Sonoma county and in fact is an extension of that county's oak region, is inhabited by the *Sitta c. aculeata*, *Parus inornatus* etc.

The brushy areas are also of several distinct kinds, but these merge into one another more or less, and with the exception of perhaps the sage, cyanothus and salmon berry regions, need not be considered as having peculiar avifauna. And indeed these three only seem to be attractive to certain birds at certain seasons. For example, if that occasional winter visitant, the *Passerella i. megarhyncha*, is here at all it is only found on the tops of the hills among the cyanothus. Again in the spring the *Aimophila ruficeps* is found and probably breeds in the sage brush, and yet in late summer may be observed among poison oak bushes and blackberry vines on grassy hillsides far away from the sage.

The temperature, especially in winter, varies a great deal in different parts of the county, and the habits of the birds vary accordingly. The bay shore enjoys a much more equable winter temperature than the interior, in consequence of which House Finches and Hummingbirds may be found all winter in San Rafael, which is on the edge of a salt water marsh, while never found during Deember and January a few miles further inland, where the mercury has a way of tumbling down to 16° or 18° on any clear morning during those months.

The ocean side of the county has an equable temperature also, but is wind swept and bleak, and is very similar to that portion of San Francisco county between the city and the ocean shore, having large areas of sand and lupines, which are the breeding homes of *Zonotrichia l. gambeli*. Quite a stretch of the northern-most portion of the ocean side however, is open grass land and consists of low rolling hills, with but little timber or brush. This portion has not been closely observed to my knowledge and may contain some forms unfamiliar to me. The following list of Land Birds is made up from the observations of many years made by my brother and myself, with occasional aid from C. A. Allen of this place. This sketch of the county is only intended to give a sort of general idea of its characteristics in relation to its avifauna, enabling one to arrive at a better understanding of the subject.

1 *Lophortyx californicus*. CALIFORNIA PARTRIDGE. Common resident.

2 *Columba fasciata*. BAND-TAILED PIGEON. Breeds sparingly. Occasionally very numerous in fall or winter.

3 *Zenaidura macroura*. MOURNING DOVE. Breeds abundantly; sparingly resident in winter.

4 *Cathartes aura*. TURKEY VULTURE. Common resident. Breeds, probably sparingly.

5 *Elanus leucurus*. WHITE-TAILED KITE. Occasional visitor; no breeding record.

6 *Circus hudsonius*. MARSH HAWK. Common winter resident.

7 *Accipiter velox*. SHARP-SHINNED HAWK. Common winter resident.

8 *Accipiter cooperi*. COOPER'S HAWK. Common winter resident.

9 *Accipiter a. striatulus*. WESTERN GOSHAWK. Rare visitor.

10 *Buteo b. calurus*. WESTERN REDTAIL. Common resident. Nests in neighborhood of San Geronimo in tall firs and redwoods; other localities in large oaks.

11 *Buteo l. elegans*. RED-BELLIED HAWK. Occasional winter visitant.

12 *Archibuteo ferrugineus*. FERRUGINOUS ROUGH-LEG. Rare. Presumably resident in one or two localities.

13 *Aquila chrysætos*. GOLDEN EAGLE. Sparingly resident.

14 *Falco p. anatum*. DUCK HAWK. Rare resident. A few breed on some of the rugged cliffs on ocean shore.

15 *Falco columbarius*. PIGEON HAWK. Probably very rare visitant. One shot by myself, but not recovered and consequently identification not confirmed.

16 *Falco s. deserticolus*. DESERT SPARROW HAWK. Common resident; quite numerous.

17 *Pandion h. carolinensis*. AMERICAN OSPREY. Very rare visitant. Three seen at various times at Lake Laguinitas and one taken.

18 *Strix pratincola*. AMERICAN BARN OWL. Common resident; not numerous.

19 *Asio wilsonianus*. AMERICAN LONG-EARED OWL. Resident in redwood and fir forests. Probably not very abundant.

20 *Asio accipitrinus*. SHORT-EARED OWL. Common on salt water marshes in winter and presumably resident.

21 *Megascops a. bendirei*. CALIFORNIA SCREECH OWL. Very abundant resident.

22 *Bubo virginianus subarcticus (?)* WESTERN (?) HORNED OWL. Common resident; numerous.

23 *Speotyto c. hypogæa*. BURROWING OWL. Sparingly resident in restricted areas.

24 *Glaucidium g. californicum*. CALIFORNIA PYGMY OWL. Common resident; not numerous.

25 *Geococcyx californianus*. ROAD-RUNNER. Very sparingly resident.

26 *Coccyzus a. occidentalis*. CALIFORNIA CUCKOO. Doubtful. Some reported as having been seen at Olema in 1898, but no specimens taken.

27 *Ceryle alcyon.* Belted Kingfisher. Common resident; not very numerous.

28 *Dryobates v. harrisii.* Harris' Woodpecker. Common resident; not very abundant.

29 *Dryobates p. gairdnerii* Gairdner's Woodpecker. Common resident; rather numerous.

30 *Dryobates nuttalli.* Nuttall's Woodpecker. Exceedingly rare visitant in major portion of county, but more numerous near northern boundary.

31 *Sphyrapicus v. nuchalis.* Red-naped Sapsucker. Very rare visitant. Three specimens taken at San Geronimo; no further record.

32 *Sphyrapicus ruber.* Red-breasted Sapsucker. Common resident in winter. Never very numerous; mostly females. Out of twenty-seven specimens taken by us in the last four years only five were males.

33 *Melanerpes f. bairdi.* Californian Woodpecker. Common resident. Not very numerous except near northern boundary.

34 *Melanerpes torquatus.* Lewis' Woodpecker. Occasional visitant. No breeding record.

35 *Colaptes auratus.* Flicker. We have taken one or two specimens of *Colaptes* in winter that are almost typical *auratus.* The cross breeds between *auratus* and *cafer* are comparatively numerous in winter, showing every possible combination.

36 *Colaptes cafer.* Red-shafted Flicker. Abundantly resident. In winter some specimens approach *saturatior.*

37 *Phalænoptilus n. californicus.* Dusky Poor-will. Sparingly resident in rocky parts of the county.

38 *Chætura vauxii.* Vaux's Swift. Abundant at times; breeds sparingly; probably resident in limited numbers.

39 *Calypte anna.* Anna's Hummingbird. Sparingly resident in winter, but very numerous in spring and summer. Breeds very extensively through a long season.

40 *Selasphorus rufus.* Rufous Hummingbird. Abundant immigrant in early spring. Breeds sparingly and not very abundant in summer.

41 *Selasphorus alleni.* Allen's Hummingbird. Sparingly (?) resident in winter, but breeds abundantly from February to July. Have taken none in early winter, but have seen some in San Rafael that were apparently of this species.

42 *Tyrannus verticalis.* Arkansas Kingbird. Common summer resident. Breeds abundantly. Earliest record April 4.

43 *Myiarchus cinerascens.* Ash-throated Flycatcher. Common summer resident; not very abundant. Earliest record April 18.

44 *Sayornis saya.* Say's Phoebe. Sparingly winter resident.

45 *Sayornis nigricans.* Black Phoebe. Common resident; comparatively abundant.

46 *Contopus borealis.* Olive-sided Flycatcher. Sparingly summer resident in firs and redwoods. Earliest record April 28.

47 *Contopus richardsonii.* Western Wood Pewee. Abundant summer resident. Earliest record April 26.

48 *Empidonax difficilis.* Western Flycatcher. Abundant summer resident. Earliest record March 30.

49 *Otocoris a. chrysolæma.* Mexican Horned Lark. Sparingly resident in certain localities.

50 *Cyanocitta s. frontalis.* Blue-fronted Jay. (An intermediate form between *stelleri* and *s. frontalis.*) Very abundant resident among the fir and redwood forests.

51 *Aphelocoma californica.* California Jay. Very abundant resident.

52 *Corvus c. sinuatus.* American Raven. Sparingly resident; scattered pairs inhabiting certain fixed localities.

53 *Corvus americanus* (?) AMERICAN (?) CROW. (Seems to be intermediate between *americanus* and *caurinus*.) Common resident; very numerous along the bay shores.

54 *Agelaius g. californicus.* BICOLORED BLACKBIRD. Abundant summer resident. Occasionally seen casually among flocks of *Scolecophagus cyanocephalus* during latter part of winter, and probably sparingly resident in marshes on bay shore.

55 *Agelaius tricolor.* TRICOLORED BLACKBIRD. Spring and fall migrant; sometimes passing through in great quantities, going north in May and June, and south in September. Some years not observed in fall and but few seen in spring.

56 *Sturnella m. neglecta.* WESTERN MEADOWLARK. Common resident; fairly abundant.

57 *Icterus bullocki.* BULLOCK'S ORIOLE. Common summer resident. Abundant in some parts. Earliest record April 8.

58 *Scolecophagus cyanocephalus.* BREWER'S BLACKBIRD. Very abundant resident.

59 *Coccothraustes v. montanus.* WESTERN EVENING GROSBEAK. Exceedingly rare visitant. One in collection taken near Olema in November, and has been reported as seen on one or two occasions; probably accidental.

60 *Carpodacus p. californicus.* CALIFORNIA PURPLE FINCH. Common resident; rather abundant.

61 *Carpodacus m. frontalis.* HOUSE FINCH. Very abundant summer resident, and sparingly in winter in some warmer spots.

62 *Loxia c. stricklandi* (?) MEXICAN (?) CROSSBILL. (Seems to be intermediate between *minor* and *stricklandi*.) Occasional winter visitant. Comes in flocks and does not remain long.

63 *Astragalinus t. salicamans.* WILLOW GOLDFINCH. Common summer resident in some portions of county; not abundant.

64 *Astragalinus psaltria.* ARKANSAS GOLDFINCH. Resident; abundant in summer, sparingly in winter.

65 *Astragalinus lawrencei.* LAWRENCE'S GOLDFINCH. Summer resident; some years abundant and other years rare; arrives about May 10.

66 *Spinus pinus.* PINE SISKIN. Resident. Abundant in large flocks in winter; scattered in breeding season.

67 *Ammodramus s. alaudinus.* WESTERN SAVANNA SPARROW. Abundant winter resident.

68 *Ammodramus s. bryanti.* BRYANT'S MARSH SPARROW. Resident in marshes along San Francisco Bay.

69 *Ammodramus s. perpallidus.* WESTERN GRASSHOPPER SPARROW. Sparingly summer resident.

70 *Chondestes g. strigatus.* WESTERN LARK SPARROW. Abundant resident.

71 *Zonotrichia l. intermedia.* INTERMEDIATE SPARROW. Reported by C. A. Allen. We have never taken any in this county.

72 *Zonotrichia l. gambeli.* GAMBEL'S SPARROW. Very abundant resident in winter, but in breeding season only found among the lupins of the Point Reyes region. Comes to San Geronimo, which is about 15 miles from the breeding ground, in September and leaves in end of April.

73 *Zonotrichia coronata.* GOLDEN-CROWNED SPARROW. Abundant winter resident. Arrives in September and leaves in April.

74 *Spizella s. arizonæ.* WESTERN CHIPPING SPARROW. Abundant summer resident.

75 *Junco h. oregonus.* OREGON JUNCO. Abundant winter resident. Arrive in latter part of September and leave in April.

76 *Junco h. thurberi.* THURBER'S JUNCO. Occasional summer resident. Nest and parent found and given to us, but bird almost destroyed and eggs nearly hatched. Apparently *thurberi.* Adult and juvenile seen in July and August, but none taken. Presumably *thurberi.*

77 *Amphispiza belli.* BELL'S SPARROW. Breeds in limited numbers. Abundant immigrant in summer after breeding season. In some years sparingly winter resident.

78 *Aimophila ruficeps.* RUFOUS-CROWNED SPARROW. Summer resident in very limited localities, never abundant. Passes through in August and September migrating south. Occasionally taken in winter.

79 *Melospiza f. samuelis.* SAMUEL'S SONG SPARROW. Common resident. Abundant on marshes.

80 *Melospiza f. guttata.* RUSTY SONG SPARROW. Winter resident. Never abundant. Arrives in September and October.

81 *Melospiza lincolnii.* LINCOLN'S SPARROW. Sparingly winter resident. Earliest record September 18.

82 *Passerella i. unalaschcensis.* TOWNSEND'S SPARROW. Abundant winter resident. Arrives in September and beginning of October.

83 *Passerella i. megarhyncha.* THICK-BILLED SPARROW. Some winters more or less abundant on the summits of brushy ranges. Other years none observed. Usually present only in very cold winters and during the coldest part. In 1897 a few taken in September. These were possibly a brood raised by parents that had been partially crippled in the previous winter.

84 *Pipilo m. oregonus.* OREGON TOWHEE. Common resident; comparatively abundant.

85 *Pipilo f. crissalis.* CALIFORNIAN TOWHEE. Abundant resident.

86 *Zamelodia melanocephala.* BLACK-HEADED GROSBEAK. Abundant summer resident. April 13 earliest record.

87 *Cyanospiza amœna.* LAZULI BUNTING. Abundant summer resident. Our earliest record May 7 (C. A. Allen April 27.)

88 *Piranga ludoviciana.* LOUISIANA TANAGER. Spring migrant, going north. Generally rare at this time, but some years abundant. Also late summer immigrant, numbers coming into the country when fruit is ripe and remaining during greater part of August and September, mostly birds of the year.

89 *Progne s. hesperia.* WESTERN MARTIN. Sparingly summer resident.

90 *Petrochelidon lunifrons.* CLIFF SWALLOW. Abundant summer resident. Earliest record March 24.

91 *Hirundo erythrogaster.* BARN SWALLOW. Common summer resident. Our earliest record April 9 (C. A. Allen March 31.)

92 *Tachycineta bicolor.* TREE SWALLOW. Summer resident. Abundant in white oak regions.

93 *Tachycineta thalassina.* VIOLET-GREEN SWALLOW. Abundant spring migrant. Sparingly summer resident.

94 *Clivicola riparia.* BANK SWALLOW. Abundant summer resident in favorable localities.

95 *Stelgidopteryx serripennis.* ROUGH-WINGED SWALLOW. Common summer resident.

96 *Ampelis cedrorum.* CEDAR WAXWING. Spring and fall migrant. Never observed in very large quantities.

97 *Phainopepla nitens.* PHAINOPEPLA. Notes heard on one occasion. Never seen.

98 *Lanius l. gambeli.* CALIFORNIA SHRIKE. Sparingly resident.

99 *Vireo gilvus.* WARBLING VIREO. Abundant summer resident. Earliest record March 28.

100 *Vireo s. cassinii.* CASSIN'S VIREO. Rare visitant. One fall record only

101 *Vireo huttoni.* HUTTON'S VIREO. Abundant resident.

102 *Helminthophila c. lutescens.* LUTESCENT WARBLER. Abundant summer resident. First observed February 15.

103 *Dendroica æstiva.* YELLOW WARBLER. Common summer resident.

104 *Dendroica coronata.* MYRTLE WARBLER. Sparingly winter resident.

105 *Dendroica auduboni.* AUDUBON'S WARBLER. Abundant winter resident. Arrives about September 25.

106 *Dendroica nigrescens.* BLACK-THROATED GRAY WARBLER. Very rare fall visitant. Only two records.

107 *Dendroica townsendi.* TOWNSEND'S WARBLER. Rare winter visitant.

108 *Geothlypis tolmiei.* MACGILLIVRAY'S WARBLER. Sparingly summer resident. Earliest observed April 5.

109 *Geothlypis t. occidentalis.* WESTERN YELLOW-THROAT. Summer resident on the marshes. Rather abundant in favorable localities.

110 *Icteria v. longicauda.* LONG-TAILED CHAT. Rare spring visitant.

111 *Wilsonia p. pileolata.* PILEOLATED WARBLER. Abundant summer resident. First observed March 26.

112 *Anthus pensilvanicus.* AMERICAN PIPIT. Abundant winter resident.

113 *Cinclus mexicanus.* AMERICAN DIPPER. A pair formerly bred near the headwaters of Lagunitas Creek. None seen for some years.

114 *Mimus polyglottos.* MOCKINGBIRD. One specimen taken by C. A. Allen. No other record.

115 *Harporhynchus redivivus.* CALIFORNIAN THRASHER. Notes heard among thick chaparral, but no record.

116 *Salpinctes obsoletus.* ROCK WREN. Very sparingly fall migrant, except on rocky cliffs on ocean shore, where it breeds in limited numbers.

117 *Thryomanes b. spilurus.* VIGOR'S WREN. Abundant resident.

118 *Troglodytes a. parkmanii.* PARKMAN'S WREN. Common summer resident. Not very abundant.

119 *Anorthura h. pacificus.* WESTERN WINTER WREN. Common winter resident.

120 *Cistothorus p. paludicola.* TULE WREN. Common resident of the tule swamps and marshes.

121 *Certhia f. occidentalis.* CALIFORNIA CREEPER. Common resident. Not abundant.

122 *Sitta c. aculeata.* SLENDER-BILLED NUTHATCH. Rare winter visitant at San Geronimo, but probably resident near Sonoma county line.

123 *Sitta canadensis.* RED-BREASTED NUTHATCH. Very abundant in August and September 1898, leaving in October. Never recorded before and not seen since.

124 *Sitta pygmæa.* PYGMY NUTHATCH. Sparingly resident in a limited area in Point Reyes district.

125 *Parus inornatus.* PLAIN TITMOUSE. Rare winter visitor at San Geronimo. Probably resident near Sonoma county line.

126 *Parus r. neglectus.* CALIFORNIA CHICKADEE. Abundant resident.

127 *Chamæa fasciata.* WREN TIT. Abundant resident.

128 *Psaltriparus m. californicus.* CALIFORNIAN BUSH TIT. Abundant resident.

129 *Regulus s. olivaceus.* WESTERN GOLDEN-CROWNED KINGLET. Irregular winter visitant. Most numerous in early spring.

130 *Regulus calendula.* RUBY-CROWNED KINGLET. Abundant winter resident. Arrives in end of September. Almost all males.

131 *Polioptila c. obscura.* WESTERN GNATCATCHER. Late summer visitant. Sometimes abundant in August. Stays a few weeks on its way south.

132 *Myadestes townsendii.* TOWNSEND'S SOLITAIRE. Occasional winter visitor on tops of higher ranges during a very cold season. Never numerous; only recorded three times.

133 *Hylocichla ustulata.* RUSSET-BACKED THRUSH. Common summer resident. Our earliest record May 7. (C. A. Allen April 23.)

134 *Hylocichla aonalaschkæ.* DWARF HERMIT THRUSH. Abundant winter resident. At San Geronimo almost every specimen taken has proved to be a male. Earliest record September 26.

135 *Merula m. propinqua.* WESTERN ROBIN. Abundant winter resident.

Scarce in occasional dry winters. Usually some arrivals about October 15, but bulk of arrivals varying with seasons.

136 *Hesperocichla nævia.* VARIED THRUSH. Abundant winter resident. Bulk of arrivals early in November. Leaves in April.

137 *Sialia m. occidentalis.* WESTERN BLUEBIRD. Abundant resident.

*"Summer Resident"—breeds.

* * *

Communications.

Concerning the Active Membership of the A. O. U.

Editor THE CONDOR:

The question has often been asked since I came to California why so few of our workers are included in the "active" list of the A. O. U. Following up this idea one is at once impressed with the fact that among our western ornithologists there is a strong feeling that we, as a whole, should be better and more fairly represented in that body.

When the A. O. U. was founded, I believe in 1883, there was comparatively little interest in ornithology and that mainly confined to the scientific centers of the East, so it was very natural that its membership at that time should be made up from that section. Certainly the timber selected at that time was so sound that the ornithologists of the country have accepted that body as their authority ever since, and no doubt will continue to do so for all time provided it broadens and expands to meet the changed conditions which confront it from year to year. Up to the present time the A. O. U. has maintained a policy of seclusion by adhering arbitrarily to a rule that limits its active list to fifty members, to the exclusion of many worthy workers, and I find a strong sentiment exists that this policy be changed. Right here it might be well to mention some of the many reasons given why the West, (and by that I mean all that section of the country not under the direct inspection of the Eastern scientific centers) should be more fully recognized in that body. The one most often put forward is the fact that interest, instead of being confined to a little coterie in the East, has spread all over the country until every state has its workers; not mere dabblers and "bird skinners," but active, intelligent workers who are covering their respective fields with credit.

Take California for instance with its Cooper Ornithological Club containing a membership of 90, supporting an organ "The Condor," which has almost a monopoly of original articles covering western field notes and discoveries. Other states are forging to the front and today instead of depending upon occasional expeditions and trips to these faraway points, which at best could make but a cursory examination, we have active workers on the ground the year around; in fact, now that the East has been so thoroughly gleaned and threshed, it is to these remote parts and to these same workers that the East must look for detailed facts concerning our least known birds. It certainly is an important event when an expedition returns with a new species to describe, but it is also important to learn the life history of that species and that is what our western workers are doing today, and the facts regarding migration, distribution and habits of western birds are as important to the world as were those which gave reputation to the founders of the A. O. U.

Another reason often mentioned why the A. O. U. should enlarge its active list, or take such action as will infuse new blood into its veins as a specific against old age, is the fact that many of its members have completed their life work or, in other words, while they retain interest in ornithology, they have ceased to be "active" in the full sense of the word. One cannot say that they are entirely shelved for their's are names still to conjure by, but their life work is behind them and in numbers are out of all proportion to an active list limited to 50. I doubt if there are really 30 active members in the A. O. U. Each year this fact becomes more apparent, and it is only a question of time when the Union will be dominated by a handful of men, if it has not already reached that point. So there is reason for the demand that instead of contracting while all else is expanding, it should meet the conditions which prevail and give all sections representation that represents.

It has not been made plain how the A. O. U. had best meet the question, but the simplest way would be to increase the number to 60 or 75, or it might provide for the advancement of an "active" member after he had completed his life work to an "honorary" list, filling the vacancy in the active list from the best material at hand; but this is only a matter of detail. What I wish to emphasize is the fact that there is an organization in the U. S. supported by the leading ornithologists, its "active" membership composed of men who have been, and many are now, our most active ornithologists, becoming each year more inactive by the shelving on account of ill health, or otherwise, of its older members; maintaining a policy which prevents an ornithologist of equal calibre from taking the place he is entitled to in the council of the elect.

I would be utterly opposed to a change if it were to result in admitting a single incompetent person to the "active" list. The requirements should be severe and the honor only come to those who earn it; but there are a few who deserve it and should not be deprived of the honor because the number fifty is arbitrarily adhered to. Out of our membership of 90 I am sure we have two, possibly three, who would fill the requirement in every way. You will see by this number that I fix the standard high, and I would not expect that all would be admitted at once, but certainly one or two should be.

I have never heard of any good reason why this state of affairs should exist, perhaps it can be explained. Certainly there are many who would like to have the condition changed or else satisfactorily explained.

Frank S. Daggett,

Pasadena, Cal.

* * *

The Club Collection of Birds.

Denver, Colo., March 21, 1900.

To The Cooper Ornithological Club:

Apropos of the suggestion of President Emerson that you aggregate a study collection of 5000 skins, and on the assurance that the collection is well under way, I will contribute 100 from this state, a representative lot, and give the club some choice as far as practicable in their selection. I should like to be informed of your plans for the keeping and handling of the collection etc.

Very truly,

Fred M. Dille.

* * *

Publications Reviewed.

Warbler Songs. The Wilson Bulletin, No. 30. By Lynds Jones, Oberlin, O. Jan. 1900. pp 56.

Not since the publication of its valuable bulletin on the American Crow, under the direction of Mr. Frank Burns, has the Wilson Ornithological Chapter put forth such a complete summary of results in a given line of study as that embodied in the present *Bulletin*. From a field of study possessing an almost limitless range of results, Mr. Jones has gleaned enough substantial facts, and has so arranged his observations, as to form a most creditable basis from which to proceed farther in the work of warbler songs. This has been no easy task, especially the separation of the various warblers into the class whose song is most nearly like their own.

Two song periods are first defined,—the *diurnal* and the *seasonal*, and these in turn are subdivided into the "call song" and "passion song," between which the author distinguishes as follows: "The call song is the product of a deliberate purpose but the passion song wants no purpose. It bursts forth unbidden." Mr. Jones comments upon the difficulties of properly describing bird songs, and with him the majority of our observers will agree. He says: "This may be minimized by combining notes from many describers, thus securing a sort of Volapuk description, which will really be a generalized song possibly suggestive to most persons already familiar with the song, but practically useless to the novice."

Following a lucid introduction comes the descriptions of the warbler songs, divided into five classes. These are: 1. Thin, wiry high-pitched songs; 2. Songs of striking character; 3. Songs resembling that of the Chipping Sparrow and Junco; 4. Species whose songs resemble that of the Yellow Warbler; 5. Whistling songs. Under each heading appears the proper species and subspecies, together with numerous examples of their songs. It is obvious, however, that the songs of a genus are sometimes widely divergent in its several species; for illustration, species of the *Dendroica* group are found in each of the five categories. The paper ends with "A Field Key to the Spring Males." Throughout the work the author has embraced the observations of all recent writers on the subject, and the paper forms the neatest thing on warbler songs which has been given us.—C. B.

* * *

The U. S. Coast & Geodetic Survey steamer *Pathfinder*, which has been engaged in chart work about the Hawaiian Islands, has reached Seattle, whence she will leave shortly for Alaskan waters. Mr. Richard C. McGregor is acting as official photographer to the expedition.

Ornithological Results of Dr. Nansen's Expedition to the North Pole.

BY. DR. R. W. SHUFELDT, M. A. O. U.

In my last mail there came to me from Christiania, Norway; a complimentary copy of the work devoted to the bird-studies made by Dr. Nansen, the famous Arctic explorer, and his naturalists aboard the "Fram" or on sledge-journeys made to and fro from her, during the years 1893–96. This fine brochure has just been issued (1899) in sumptuous quarto form (paper) illustrated by one colored plate of the young in first plumage of *Rhodostethia rosea*, and one full-page half-tone of two other specimens of the same bird, being dead and hung up by the feet to exhibit the pattern of the dorsal and ventral plumage.

The memoir is published by the Fridtjof Nansen Fund for the Advancement of Science, by Jacob Dybwad of Christiania, Norway, by Longmans, Green & Co. of London, New York and Bombay, and by F. A. Brockhaus of Leipzig.* Professor Robert Collett,

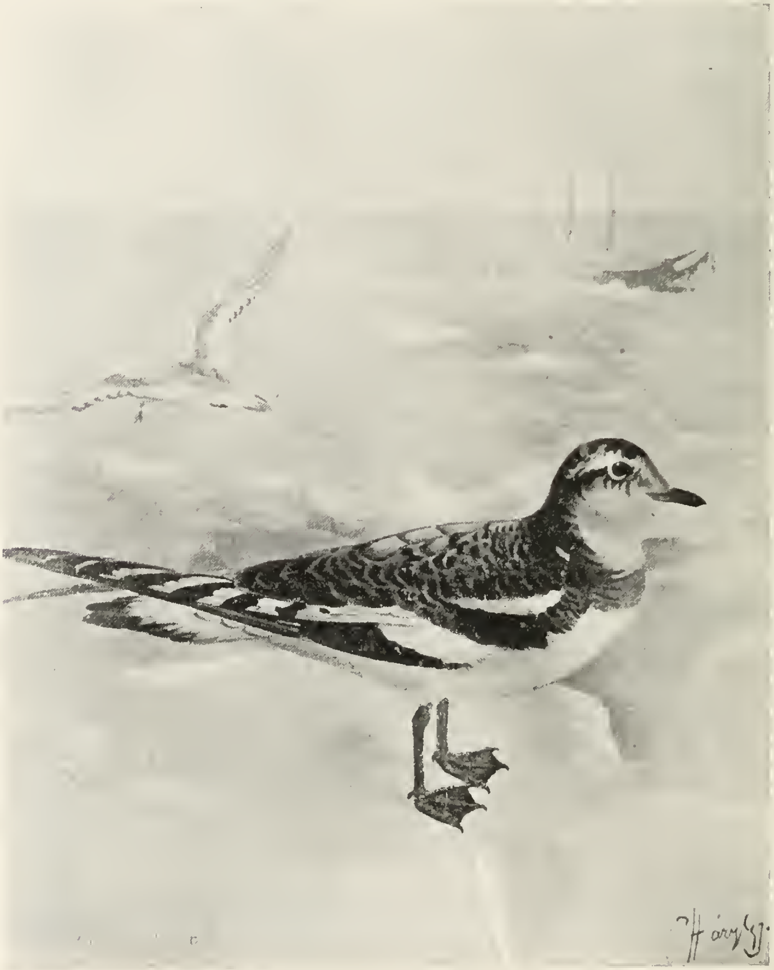

FIG. 1. *Rhodostethia rosea.* YOUNG IN FIRST PLUMAGE. (Reduced.)

**The Norwegian North Polar Expedition* 1893–1896, Scientific Results, edited by Fridtjof Nansen IV. An Account of the Birds, by Robt. Collett and Fridtjof Nansen.

Professor of Zoology in the University of Christiania and a foreign member of the A. O. U., is associated with Doctor Nansen in the production of this valuable contribution to polar ornithology. By the aid of my camera I have made a reduced copy of the colored plate of *R. rosea*, and a half-tone copy of this illustrates the present notice. From the "Introduction" we learn that the observations recorded are divided into four (IV) sections; the first three being from Nansen's journals "supplemented by his verbal comments and explanations during the preparation of the work. The last section gives the observations made during the time that the ship was drifting with the ice in the summers of 1895 and 1896, and is compiled from written and verbal information received from Scott-Hansen Blessing and Mogstad, and also from the journals kept by Sverdrup."

These observations are quite full, as the brochure covers fifty-four (54) pages. After the ship had closed in the ice, the first bird seen in the spring of 1894 (a gull, probably *Pagophila eburnea*), appeared on May 13; birds were seen now and again until after the middle of August. After August 23rd, or the day when all the channels and lanes about the ship began to freeze up, no birds were seen. "During this part of the journey, eight specimens of *Rhodostethia rosea* were shot and prepared, all of them young birds of the year." while "Farthest north was found *Fulmarus glacialis*, of which a specimen was observed in 85° 5' N. Lat."

In the brief notice, of such a formal work, as I am now giving it would be obviously out of the question to enter upon all the valuable, interesting, oftentimes amusing records made in so extended an account, and one covering a period of several years. At the close of the narrative an "Index" is printed, which sets forth a list of the birds seen or collected during the entire Expedition to the number of thirty-three (33) including, as one would naturally suppose, not a few of our American boreal forms. They are *Ægialitis hiaticula*, *Alle alle*, *Anser segetum*, *Archibuteo lagopus*, *Arquatella maritima*, *Branta bernicla*, *Cepphus mandti*, *Colymbus arcticus*, *Crymophilus fulicarius*, *Falco æsalon*, *Fratercula a. glacialis*, *Fulmarus glacialis*, *Harelda glacialis*, *L. lagopus*, *Larus argentatus*, *L. fuscus*, *L. glaucus*, *L. maritimus*, *Nyctea scandiaca*, *Pagophila eburnea*, *Phalaropus hyperboreus*, *Plectrophenax nivalis*, *Rhodostethia rosea*, *Rissa tridactyla*, *Somateria mollissima*, *Squatarola helvetica*, *Stercorarius crepidatus*, *S. longicaudus*, *S. pomatorhinus*, *Sterna macrura*, *Totanus nebularius*, *Uria lomvia* and *Xema sabinii*. This is an interesting list, and in it there is to be found but one passerine bird, namely, *P. nivalis*, which was frequently observed by these distinguished explorers at various points during the course of their journey.

* * *

After five years of prompt publication, *The Museum* of Albion, N. Y., has consolidated with the *Naturalist, Farm and Fanciers' Review*, a publication devoted chiefly to poultry interests, but containing natural history departments. The *Review* is conducted by Mr. H. W. Kerr and will be issued from Albion, N. Y. Mr. Webb will address his friends from time to time on conchology and kindred subjects through a special department. With the passing of the *Museum* we can but commend Bro. Webb for his standard of prompt publication, a feature too often lacking in many of our scientific journals.

* * *

Mr. John W. Martin of Palestine, Or., writes under date of April 9 that the juncos have begun building and that on March 16 he noticed a young Western Meadowlark (*Sturnella m. neglecta*) about two weeks from the nest, which was early, considering a fall of snow in February, followed by a cold snap.

THE CONDOR.

Bulletin of the

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OF CALIFORNIA.

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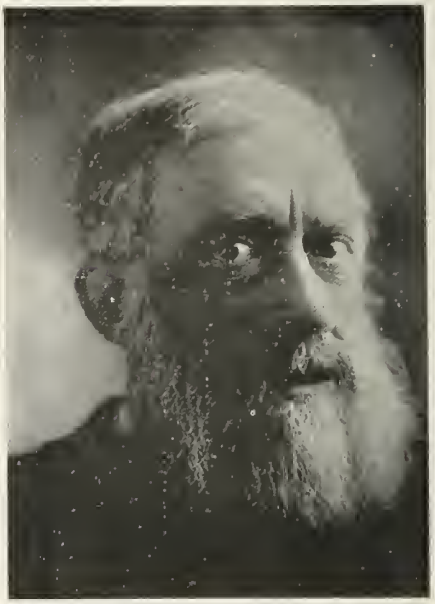
This issue of the Bulletin was mailed May, 16.

EDITORIAL NOTES.

Last Portrait of Dr. Coues. Through the courtesy of *The Land of Sunshine* of Los Angeles, Cal., we present to the readers of THE CONDOR probably the last likeness which was taken of Dr. Coues preceding his death. In the February number of *The Land of Sunshine*, Mr. Chas. F. Lummis, the editor, devotes several pages to a character sketch and his impressions of Dr. Coues, of whom he was an intimate friend. Mr. Lummis was a member of Dr. Coues' party in New Mexico in 1899, when the doctor was engaged in what was destined to be his last scientific work.

Mr. Lummis' lofty estimate of Dr. Coues' character and ability as an ornithologist is shared by all who counted the doctor as their friend. Referring to Dr. Coues' illness, he says: "In all the wavering shadows of the leaves upon us, there was no shadow of what was to come. Yet it was already written. As the rest of us look back to that flawless day in Juan Rey's patio I fancy we shall not escape some twinge that we could not better read the lines under those clear, genial eyes. Already Dr. Coues was a doomed man. Already he suspected—and allowed no one else to. The weariness and bruises of a long, hard trip in springless wagons would soon wear off, and our Nestor be himself again. Even his last letters months after, did not convey a sense of apprehension. But now we know he knew."

As the years wear on, ornithologists generally will realize more and more the loss which their science has suffered in the death of Dr. Coues In many respects his position as a writer was unique, and in most discussions his position was an aggressive one. Being an ornithologist through and through and having pursued the study for the purpose of advancing it as lay within his power, he had no patience with the side-issues of doubtful value or sincerity, and never ceased to upbraid those who forsook the study proper to engage in fads. While Dr. Coues' frankness at times made for him enemies, there are few but whom admire Dr. Coues as a man who had the courage of his convictions.



ERRATUM.—In Mr. Swarth's list of birds appearing in the March-April CONDOR for 73, *Phalænoptilus nuttali nitidus* read *P nuttali californicus*; 121, instead of *Junco thurberi* read *Junco hyemalis thurberi*; 168, instead of *Regulus satrapa olivaceus* read Ruby-crowned Kinglet, *Regulus calendula.*

To those ornithologists who receive this issue of THE CONDOR as a sample copy, we invite a careful inspection of its contents. The issue contains notable articles on the nesting of the Clarke's Nutcracker and the Pine Siskin, besides other papers of value, all of which are but examples of the valuable papers to be found in each issue. With 90 active club members in the field, there are few rare or interesting discoveries which are not promptly recorded. Should THE CONDOR not, therefore, be included in your list of bird periodicals?

Nesting of the Pine Siskin at Denver, Colo.

"Nests in the far north, preferably among the conifers" is the convenient phrase with which most of the winter visitants are disposed of by the "book men," especially when they must say a word or two regarding every species in "the book." But this disposal must not be taken too seriously here in Colorado.

We have a passable migration in altitude which answers all purposes for many birds, if they are not over particular and have no ambition to make a few daily "century runs," and the Pine Siskin (*Spinus pinus*) at times seems to be disposed to accept this kind of a migration. I believe they nest quite generally over most of the western portion of the state, through the mountain country and the territory adjacent to the east of the mountains, though perhaps not with any regularity as to localities or sites, the birds being erratic and more or less dependent upon the severity of the winter.

The winter of 1898-99 was a severe one, continuing far into March. The Pine Siskin came from the north in great waves and no doubt the late spring had the effect of holding many of them here during the nesting season. The winter just past has been mild and open and the siskin has been almost absent.

I had noticed that while here in winter they were not a very shy bird, and that I could get among them without alarming them to any extent, but was not prepared to see them carry this trait so far as to bring their nest right to the house. One nest was built in a small lilac bush by the front gate and not three feet from the public walk where people were constantly passing. Another was under construction in a mass of dead vine on the back fence, which I did not notice until I tore down the vine to make way for a new growth, while a third was built in a lilac bush in a neighbor's front yard, but I did not learn of this until the young were hatched. Is it not probable, therefore, that they colonize in their nesting as they do in their flight and migration?

As to the nest I did not collect, it was examined daily by from five to eight children (not all mine) from the time the first straw was placed until completed. So much familiarity would have discouraged a dove or even a tame canary. The male bird was much in evidence during the construction of the nest and up to the time of finding the first egg, but from that time I never saw him and I was on the lookout the greater part of five days. Was this due to "the cat" or was it another siskin habit worthy of record.

The nest was complete in all its detail one week before the first egg was announced by the children on May 13, the others following at regular intervals of a day each and I took the set of three on May 17. Regarding the eggs, they come up to the requirements of the book description to a nicety; viz: being of a "pale greenish-blue color" and marked "chiefly around the larger end" with reddish brown. I would call the markings blotches, and there are a few over the whole egg, together with a few black marks. The nest is well-proportioned, strong, cup-shaped and perhaps large for the size of the bird. It is composed first of flat grass blades, weed fiber and some round stems. Between this and the lining is the weaving of very fine dry grass which gives it shape and strength. The lining is of horse hair and combings of human hair.

F. M. Dille.

Denver, Colo.

* * *

Mr. W. L. Finley of Portland, Oreg., is now attending the University of California at Berkeley and incidentally doing a little bird work as time permits.

Official Minutes of Northern Division.

The Club met at the home of Theodore J. Hoover in Palo Alto May 5, with President Emerson in the chair, and Mr. Hoover as secretary pro tem. Messrs. John J. Williams of Applegate, Placer Co., and E. A. Goldman of Delano were elected to active membership. The following names were proposed for active membership: J. O. Snyder, W. K. Fisher and R. E. Bruce of Stanford University and J. M. Hyde of Palo Alto. The following papers were read: "In the Breeding Home of Clarke's Nutcracker" by H. C. Johnson and "Nesting of the Mexican Wild Turkey" by O. W. Howard of the Southern Division. Mr. Jos. Grinnell then gave a very entertaining talk on Alaskan birds, and showed the Club a fine series of ptarmigan skins, showing the different moults. Refreshments were served, after which an hour and a half was spent in entertaining bird talk.

C. Barlow, Division Secretary.

Official Minutes of Southern Division.

March.

The meeting was held on March 29 at the residence of Mr. G. S. Chambliss, in Altadena. Mr. Daggett presided. There were ten members present. The resignation of A. I. McCormick as Business Manager was accepted, and the treasurer, H. S. Swarth, elected to serve the unfinished term. On motion, a committee was appointed consisting of Messrs. Hahn and Chambliss to investigate the possibility of establishing a museum for ornithological specimens in Pasadena. The treasurer was instructed to send the dues on hand to the Publication Committee, reserving five dollars to meet current expenses. Burnell Franklin of Pasadena was elected to active membership. One paper, "The Heermann's Song Sparrow," by A. I. McCormick, was read.

April.

The April meeting of the Division was held on April 28 at Room 403 Bradbury Block. There were eight members present. The museum committee were given another month to make their report. The name of J. Eugene Law of Pomona was proposed for membership by Mr. Grinnell through Mr. Daggett. Mr. Roth Reynolds exhibited some photographs of mounted birds, including one of the Little Brown Crane taken at Newport, Cal., a short time ago. After general discussion the meeting adjourned to meet with Mr. Daggett at Pasadena on May 31.

Howard Robertson, Division Secretary.

Publications Received.

Stone, Witmer. A New Race of the Short-eared Owl. [Proc. Acad. Nat. Sci. Philadelphia, 1899, p. 478. Dec. 29, 1899.]

Mr. Stone describes a new race of Short-eared Owl from Pt. Barrow, Alaska from specimens collected by Mr. E. A. McIlhenny in 1898. The new race is described as much paler than specimens from the United States and with the tawny tints largely replaced by white. It is given as ranging southeastward over the arctic barren grounds from Point Barrow, and the name of *Asio a. mcilhennyi* is proposed for the form.

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Ornithologisches Jahrbuch. X, Nos. 5, 6, Sept. Nov., 1899 and XI, Nos. 1 and 2, Jan., Mch., 1900.

Osprey, The. IV, Nos. 5, 6, 7, 8. Jan., Feb., Mch., Apl., 1900.

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Plant World. III, Nos. 1, 2, 3, Jan., Feb., Mch., 1900.

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*Proceedings of the Nebraska Ornithologists' Union*Jan, 1900,

Feb., Mch., Apl., May, 1900.

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Sports Afield, XXIV, Nos. 2, 3, 4, 5, Feb., Mch., Apl., May, 1900.

Sunset IV, Nos. 3, 4, 5, 6, Jan, Feb, Mch, Apl, 1900.

Western Ornithologist, V, Nos. 1, 2, Jan. Mch, 1900,

Wilson Bulletin. No. 30, Jan, 1900,

Year Book Department of Agriculture, 1898. (issued 1899)

* * *

Mr. W. W. Price has arranged to again establish his delightful summer camp for boys in the Sierras from June to September next.

THE CONDOR.

Bulletin of the Cooper Ornithological Club.

A Bi-Monthly Exponent of Californian Ornithology.

Vol. 2. No. 4. Santa Clara, Cal., July-August, 1900. $1.00 a Year.

On the Scientific Photography of Birds' Eggs

BY DR. R. W. SHUFELDT, C. M. Z. S.

A FEW months ago when in the room of my friend, Mr. De Lancey W. Gill at the Bureau of American Ethnology in Washington, D. C., I saw him making some photographs of a variety of small Indian relics. The method he employed is not altogether new, but is especially adapted to the taking of small and medium-sized objects of scientific material, and recently I have been wonderfully successful in employing this method in the photography of sea-shells, and my paper upon this subject will appear some time during the year in *The Photographic Times* of New York City. Later on it occurred to me that it would be the very thing to employ in the case of birds' eggs, as from their size, form and coloration they constitute a class of objects especially adapted to its application. Then, too, of all the reproductions of photographs of birds' eggs in oological works and magazines, how very few of them are really of a meritorious character? Of course the superb illustrations in Major Bendire's famous volumes are quite another thing, but I am inclined to think that with a little further practice and experience, I can, by the aid of the 3-color process in photography, come remarkably near rivaling even those celebrated figures.

Now to get photographic pictures of eggs after the method spoken of above, we attach the specimens by means of wax to a 8x10 pane of thin, clear glass, perfectly free from imperfections of all kinds whatever. This is supported by any simple contrivance in the vertical position, while some two feet posterior to it, we suspend a large sheet of perfectly white, coarse, and "linty" blotting paper. This must be held absolutely parallel to the glass bearing the eggs, and it serves as their background. When prepared, the entire affair can be sustained upon a spare tripod, an easel or anything of the kind, so long as its horizontal part is in the same plane, or nearly so, with the bed of the camera. We now focus with an open lens, and carefully study our subjects upon the ground-glass of the camera. It must be seen well to, that the blotting-paper is free from all *shadows*, and is uniformly and *brilliantly* lighted all over its surface. Next, make perfectly sure that all of the lights and shadows *on your eggs* are just as they should be. Study the glass closely to which they are attached, and be certain they make no *reflections* in it. Then with a pair of sharp-pointed compasses and a strong hand-lens, again study the eggs upon the ground-glass of your camera, and satisfy yourself that you have them precisely of the size of nature, and so well focused that you can see the *minutest pits* in the shell-structure. (My photographs show these distinctly.)

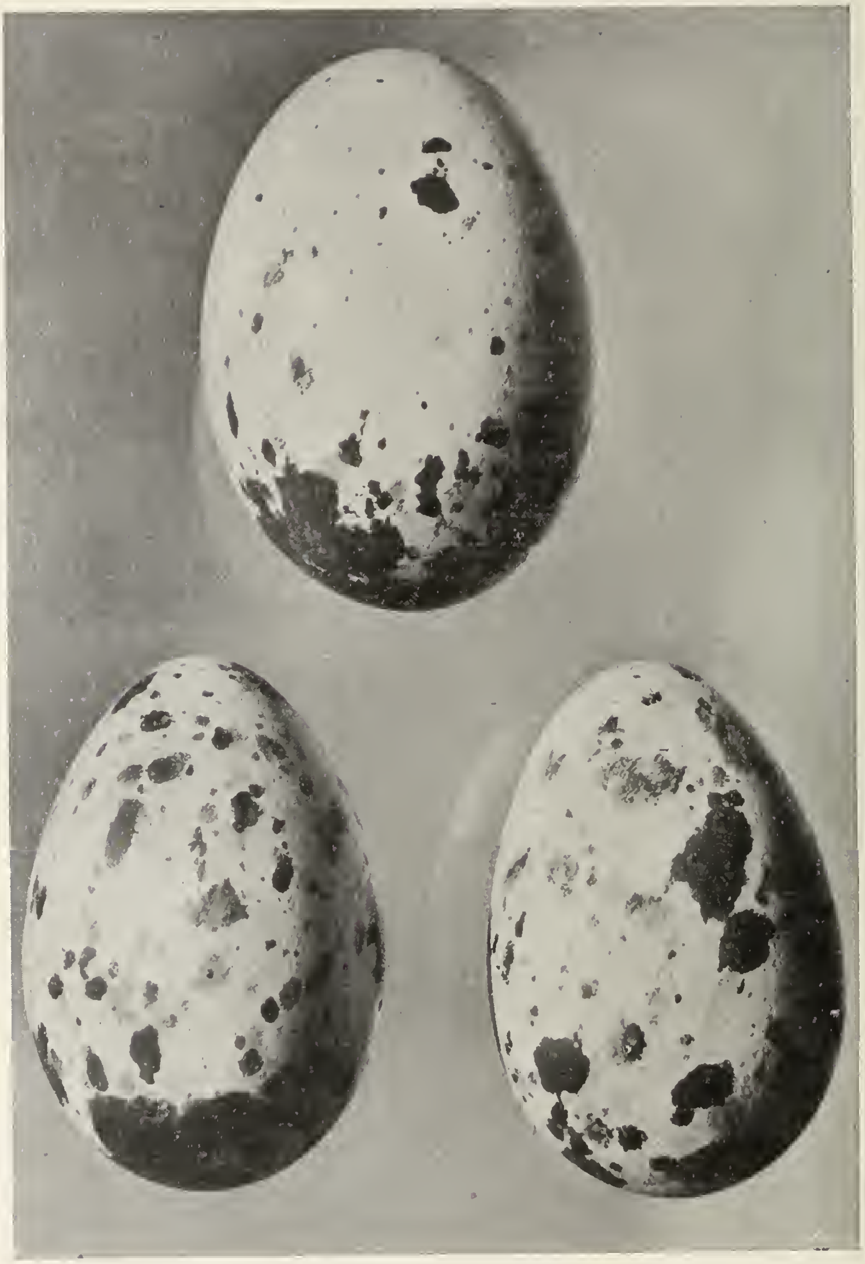
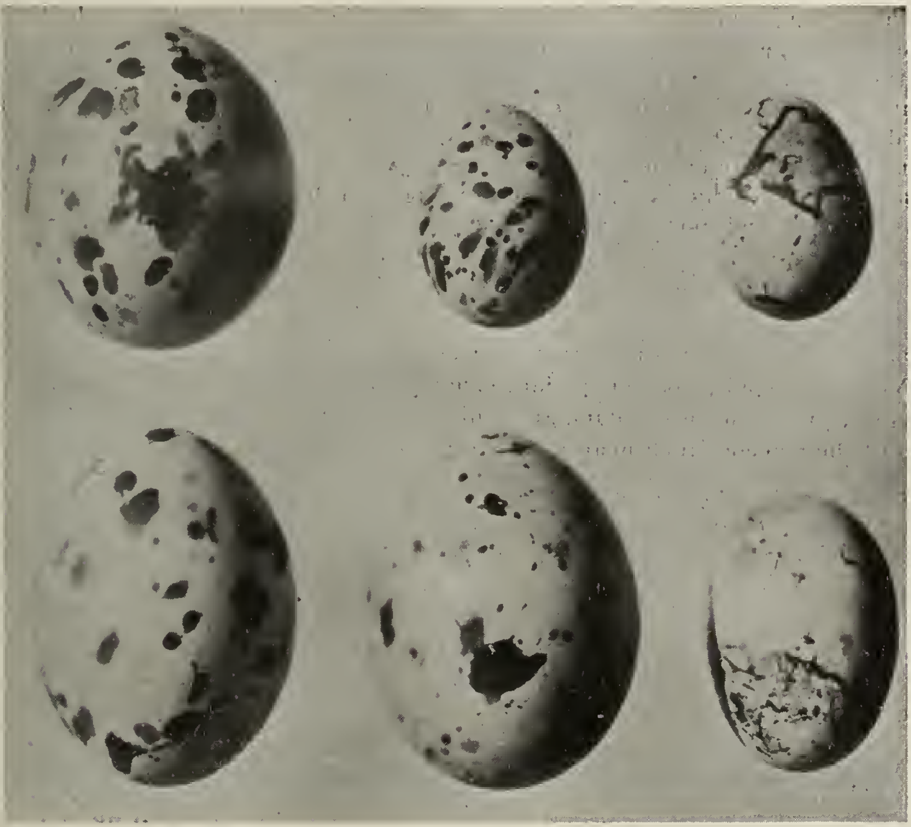


Fig. 1—3 (Upper one) Turkey Buzzard (*Cathartes aura*) natural size. (2 lowe ones) Pigeon Guillemot (*Cepphus columba*) natural size.

From photograph by D. R. Shufeldt.

Indeed, study *every point* on your ground-glass as you would criticise a plate of eggs in any scientific work. It is hardly necessary for me to say that you are to turn that side of your specimen or specimens towards your camera, that you desire to appear in the resulting photograph. When all is ready, "stop down" your lens with a diaphragm of the smallest size, and make an exposure from 20 to 45 seconds, according to the kind of subject you have. I use Seed's Gilt Edge plates (dry) 27 (instantaneous), but they are unfortunately not always free from air-bubbles in the glass, and at any time one of these may ruin your picture. In plate I of the present paper an air-bubble and its effect is shown near the left hand figure of the Pigeon Guillemot's egg. If they happen to come on the specimen they injure the picture.



Figs 4—9. Photographs of Eggs by Dr. Shufeldt. The three large ones are of the Black Skimmer (*Rhynchops nigra*); the middle small one (upper row) is of the Least Tern (*S. antillarum*); the one next to it of the Purple Grackle (*Q. quiscula*), and the one below that, of the Chuck-will's-widow (*A. carolinensis.*)

All of the eggs figured in this article, were with great generosity loaned me from the very choice collection of Mr. Edward Court of Washington, D. C., to whom my thanks are here tendered, not only for the assistance rendered, but more for the extreme courtesy in which he placed all of his oological material at my disposal.

Of the eggs in figures 1—3 of this paper, Mr. Court collected the one of *Catharies aura*, while the two specimens of the Pigeon Guillemot were taken by the worthy editor of the Condor on the Farallones, a number of years ago. The defect in making the egg of the Vulture is that the specimen is slightly reflected in the glass-plate; this is still better marked in the case of the right hand Guillemot's egg, and it, too, is a little tilted to one side, while its background is not properly illuminated. All of these faults are pointed out so that the naturalist-photographer can both recognize and avoid them. In the case of the egg of the Pigeon Guillemot in the lower left-hand corner of this plate, I consider it quite perfect. By studying the photograph with a hand-lens, the structure of the very egg-shell can be observed; the specimen is properly lighted and poised; and it is of the actual size of the original, and its most interesting surface is towards the observer.

The figures in Plate II (4-9) speak pretty well for themselves,—still the skimmers' eggs are just a bit too highly illumined on their left sides, and the middle one of the lower row has cast a slim shadow on the egg of the Chuck-will's-widow next to it. However, I much believe that this method will be of assistance to any one desiring to make good photographs of birds' eggs, and if this proves to be the case, neither the time nor the labor and material I have used in the production of this paper will have been in vain.

* * * *

The Sierras in June

Long-loved haunts, again I greet your noble forest, ever green,
Your snow-clad peaks, deep, dark canons, flowers, ferns and air serene,
Your sequoias, incense cedars, graceful spruces, firs and pines
Lift their heads much nearer heaven than the trees of other climes.

Countless lilacs and azaleas give the air their rich perfume,
Pure, cold streams from lofty snow-fields chime with birds in joyous tune!
Swift waters flow pass moss and fern, past saxifrage and columbine,
We lure the trout where all things please; Sierra streams, rare charms are thine!

Where the river rushes madly, foams and frets to meet the tide,
The Canon Wren whistles gladly in caves by the river's side.
Unseen thrushes sing divinely in the densest, darkest shade,
Ouzels sing and chase each other in and out of the cascade.

Happy birds! forgetting winter, you dread not what time may bring,
Wise are they 'mid scenes like these, who feel that life is always spring.
Dark clouds make the sun seem brighter, without clouds there is no rain,
Souls are dwarfed by constant sunshine; too much sunshine shrinks the grain.

All the world is full of beauty when the heart is free from guile,
If we look at nature kindly she returns a radiant smile,
Here her smile is ever brightest—charming, care-dispelling smile,
Here the heart is ever lightest, free from strife and trade's turmoil.

In the evening's varied shadows, in the canons dark and deep,
Graceful, timid deer leave cover, rainbow trout for insects leap.
Later when the thrush is silent, and the bright moon's searching light
Contrasts strangly in the forest with the darkest shades of night

Owls shriek, perchance a panther's scream unnerves the wandering deer, stills
Everything save sighing winds in moonlit tree-tops, noisy brooks and rills.
Night and day, summer and winter, have grand features each its own,
Rude tempests sweep o'er sleeping forms when the summer birds have flown

Lyman Belding

Stockton, Cal.

Notes on the Long-billed Curlew

BY P. M. SILLOWAY, LEWISTON, MONT.

[Read before the Northern Division of the Cooper Orn. Club, July 7, 1900.]

UPON taking up my residence in the region of central Montana, I was attracted by the Long-billed Curlew, (*Numenius longirostris.*) It was reported to me as being one of the early migrants to appear on the prairie, and in the spring of '99 I eagerly waited for an introduction to this bird new to my avian list. However, the spring being unusually backward, it was near evening on the 24th of April when I welcomed the first curlews of the season. Two birds flew over, uttering loud, long-drawn whistles, and I knew that the curlews had come.

Though the season of 1900 was as much earlier as the preceding season was backward, I failed to see curlews until April 25. I had been repeatedly informed by the natives, however, that the curlews were around, and it is safe to say that the middle of April, 1900, saw these birds represented on the prairies.

After their arrival, the curlews inhabit the high, dry prairies, flying restlessly from one portion to another, showing a tendency to associate in pairs, though as couples, these birds are not inseparable. In the mating season, one of the pair is likely to follow the other in a few moments, when the first bird has flown far over the prairie to a more distant station, At any time the loud, prolonged whistling of these birds, either when on the ground or a-wing, will call attention to their movements, warning the disturber of their domain that his presence is known and that his actions will be watched with the closest interest.

One of the pleasing sights to the ornithologist in watching the behavior of these curlews is seen when a pair are sailing upward in company a-breast of the wind, moving in perfect accord on wide-spread, motionless pinions curved gently downward, within several feet of each other, then fluttering downward side by side or one in advance of the other, again to sail upward, uttering the characteristic whistles. There is another side to the disposition of the Long-billed Curlew, for this spring I was once startled by an unusually piercing whistle, and looking upward, I saw a curlew swooping angrily upon a Ferruginous Rough-leg that had chanced to wander over the claimed domain of this pair of *Numenii.* Time and again the curlew swooped upon the unoffending *Archibuteo* as the latter flapped heavily along the edge of the coulee, and the cliff echoed with the shrill whistles of the angry curlew.

On the other hand, the Long-billed Curlews are the victims of petty teasing by the longspurs which throng the prairie, I have repeatedly noticed McCown's Longspur, (*Rhynchophanes mccownii,*) flutter up beside a curlew, sailing upward, or attempt to strike the curlew, the latter on such occasions seldom giving any attention to the petty annoyance mentioned.

About the middle of May, 1900, I began to give serious attention to the nidification of the curlews. In looking over my authorities for data regarding time of nesting, I found the information quite unsatisfactory, Col. Goss alone giving the time, early May, for Kansas. If they nest in early May in Kansas, these birds would nest toward the latter part of May in Montana, I reasoned; but this season being unusually early, the curlews should be nesting by the middle of the month, I concluded. Fearful that only eggs with blood, bones and feathers, if eggs at all, were to be my portion, I spent much of my leisure time thereafter in following up the curlews, sadly neglecting other oological interests in the meantime. On May 18 I spent the afternoon in a drizzling rain in bootless quest of curlews' eggs. On May 20 I lay behind a ridge with field glasses and watched a female, evidently just off the nest, but after having gleaned along two ridges for thirty minutes each, she slipped over one of them and then winged her way so low over the prairie that I lost sight of her.

Saturday, May 26, found me afield in a new quarter, and late in the afternoon, in crossing the highest part of a large area of of fenced prairie, I excited the attention of a pair of curlews, tho' a number were moving here and there in the pasture. Having little time then to give the place extended search, I took the opportunity to walk out to the pasture on the next afternoon. Upon reaching the same quarter, a male curlew sharply whistled his displeasure at my proceeding, and as I advanced up the ridge he occasionally flew at me with angry movement. Thus working around the place, following the clews given by the male, I soon determined that the nest was within a limited area, how limited I had little idea at the time; and setting up a shattered shoulder blade that had long bleached on the prairie, I began careful search for the supposed nest. Starting from the bone as a center, I would trace a radius of about one hundred yards, then walk about forty feet in an arc of the circle, and walk back to the center. Thus I searched quite carefully every part of the semi-circle on the side of the bone where I seemed to attract most attention of the owners, but two hours of search found me ready to give up the quest, baffled as usual. Besides, it was Sunday, and I had brought nothing to carry home the eggs in, anyway, so I wended my way homeward pondering upon the deceitfulness of the curlews.

Monday afternoon, May 28, again took me afield to the appointed place. My bone still stood as a landmark, and again the male flew angrily toward me, turning abruptly upward as he passed me, giving a loud swish with his wings as he checked his forward flight. I had all along noticed that he came at me chiefly from a particular direction, and was thus causing me to search on the side of the bone from which he came. Changing my tactics, I determined to search more closely in the direction he pointed as he flew at me; and walking in that direction about a hundred yards from the bone, after a few minutes I saw the female flattened upon the ground with tail toward me, about twenty feet away, her head and neck lying upon the ground in front of her invisible to me. My first thought was that I had stumbled upon a dead prairie chicken, so flatly was she sitting upon her nest; but as I took several steps toward her, she flew low from the nest for about thirty feet, then fluttered along the ground with flapping wings, describing an arc of a circle about forty feet distant from me.

As I was out for eggs, however, I paid but little attention to the parental efforts of the mother to mislead me, and was soon bending over my first curlew's nest. It was a well made structure, placed in a shallow depression beside a low pile of dried cow manure. The nest was made of dried weed-tops, the rim being elevated one and a half inches above the surroundings. The cavity was eight inches across and two inches deep. The general appearance of the nest gave the impression of its being quite elevated. There were four eggs, handsomely colored and marked, placed with small ends together in the middle of the nest. Incubation had scarcely begun. Three of the eggs had a ground of light greenish olive, thickly marked with blotches of dark umber and chocolate; the fourth egg has a rustier appearance, both in ground color and in markings. The eggs in this set measure about 2.70 by 2.00 inches.

Many persons think it strange that having found the object of so long a quest, the ornithologist is not satisfied, but desires to add other similar specimens to his cabinet. Most of the members of the Cooper Ornithological Club, however, will not think it strange that the next afternoon found me afield in quest of curlews' eggs. The field where I had watched the female so long, was the place of operations, and after an hour of tramping I excited the attention of a male. Keeping on the move aimlessly to get him to play "hot" or "cold," I was lead through a barbed wire fence into a field which I had crossed. Beginning my search in the direction the male pointed as he frequently flew toward me, after less than an hour of careful scrutiny of the ground in the supposed quarter of the circle about my central stick, I saw the female as before flattened upon the ground beside a pile of dried cow chips, less than twenty feet from me. As in the former instance, she fluttered from the nest as I approached her, and tried to lead me away by feigning to be crippled. One of her tricks was to lower her head, with bill almost touching the ground, and run along in a shame-faced sort of way.

This nest was constructed almost like the first, but was situated more among grass blades, which grew up around the rim of the structure. It contained four eggs, placed like the others, with the pointed ends toward the middle of the nest. The four eggs are nearly alike, the ground being more greenish than those of the first set, one of them having markings noticeably wreathed at the larger end, another having markings thickly congregated upon the large end, all having other markings quite generally distributed besides those mentioned. These eggs average about three-sixteenths of an inch less in length than those of the the first set.

It was my fortune once to enjoy an outing in an Illinois swamp with a friend who was collecting for his first season. Frequently, when he came upon a nest of coot or gallinule, I would suggest that as they were so plentiful and the grounds so close, we might leave the eggs. He would reply that though they seemed so plentiful then, another year they might not be so abundant, as the water might be too high or too low, or the birds might leave; hence it was best to get all we wanted then, and we should have them at any future time when they might be scarcer. I have always remembered my friend's advice, and so when the next morning came, May 30, it brought me leisure in the forenoon to continue the quest for curlews' nests. Taking my son with me, to help play the curlews and thus save time, I went farther into the pasture where I had found my first set, as on that occasion I had counted as many as twelve birds in view while searching for the first nest. The pasture being more than a mile in length. I knew that there was room for more than one nest, and on getting into the farther side of the field, as my son was walking down a long slope at the end of a gentle swell, he attracted the attention of a male, which hovered over him uttering its cackling whistle, the sound reminding me of the jarring of a freight train as it is about stopping with set brakes.

Following my tactics as on former occasions, we found the nest in a search of less than an hour. My son saw the female on her nest, and remarked that at first he thought it was a dead chicken. This bird sat so closely that I could touch her with a walking stick I carried, before she fluttered from her eggs; and as I suspected, they were advanced in incubation, though not enough to give trouble in blowing them. There were four eggs, placed as usual in the nest. Three of them are the usual light greenish olive pattern, with heavy blotching upon the large end of two of them; the fourth has a much lighter ground, thus furnishing a new pattern of coloration quite different from any of the other eggs described.

At the risk of being denominated an "egg hog," I shall have to confess that the following afternoon, May 31, found me back in the pasture where I had taken my second set. After rambling about until 6 P. M., having encountered a shower in the meantime, as I was making a final round before starting homeward, I noticed that a curlew gave evidence of a nest in the neighborhood. It took me about an hour to locate it, but by "trekking" in the direction indicated by my signs, I found the female ensconced on her nest in the lower portion of the meadow, among grass growing higher than her back. She sat until I could touch her with my stick as in the preceding instance, and then fluttered from her four eggs. The nest was similar to those described, being mostly built upon the ground, though the site was a slight depression, and besides a pile of dried cow manure. These eggs were heavily incubated, and were much smaller than any before found, averaging about 2.42 in length by 1.82 in breadth. Their ground is the light greenish olive pattern, blotched more about the large end, three of them showing scrawling blotches of black upon the large end. It will be seen that the eggs of *Numenius longirostris* show decided variation in color of markings, and I know of no other eggs presenting a handsomer appearance in the collector's cabinet. The books report that sets consist of 3–4 eggs, but it does not appear to me than a full first set can contain less than four eggs.

There are many other interesting facts in the history of the Long-billed Curlews, but as this article has more than exceeded the space desired by a patient editor, the future shall have to care for the further interests of *Numenius longirostris*.

* * * * *

The Little Widow

A True Chapter in the Life History of a Pair of Mockingbirds

BY MOLLIE BRYAN, ORANGE, CAL.

DURING the summer of '96 a pair of Mockingbirds nested in a big pine on the lawn, rearing their young among the shrubbery of the garden, levying on the fruit from the orchard close by, as part payment for the beautiful music daily rendered by the head of the house. When not busy with family cares, our singer decided, in return for the rent of his home, to superintend affairs of the ranch, at least in so far as to say who should or who should not come within our garden gate.

Being of rather a pugnacious disposition he made it very manifest who were his favorites. He had an especial spite for a beautiful black and white cat, "Tom," that daily followed my uncle, who lived near, as a dog would. He always escorted Tom half way home scolding and darting at him with great vigor, while Tom rolled on his back, with all four feet in the air, to ward off the sharp pecks of the bird, but apparently enjoying each encounter. My uncle, becoming tired of having Tom thus persecuted whenever he chose to visit his neighbors, took his gun and put an end to it.

The first I knew of the death of our songster, I missed his morning song, and later in the day my attention was attracted by the female as she flew about the yard and garden, apparently searching for something—and Tom came and went unmolested. On inquiry I learned what, to me, was a tragedy, for all day the poor little mat went from one tree to another, in an out of the bushes, watching sharply each person that passed from the house constantly uttering a peculiar, mournful,—we could almost imagine accusing—cry, which enlisted our sympathies.

All summer the "little widow," as w

began to call her, remained close about the house. We always knew her by that mournful note which she uttered as she flew, and which differed entirely from any note I ever heard by a mockingbird. She soon came to sleep at night in the Banksia rose over the east porch, always announcing her presence by that cry, which heard at dusk, had a wierd, uncanny sound. Many evenings this porch was unused as members of the family were prevented from passing in and out for fear the little widow's slumbers be disturbed. Her proceedings grew in interest to me, 'till it became a daily practice to record any incident of her lonely life that came within my observation.

One day in September I heard a great chattering and chirping among some birds, and slipped to a window that overlooked the trees whence the sound came. Occasionally there was a note suspiciously like that of a mockingbird. Had some one come to call on our little widow? At a distance a mockingbird began singing softly. In a moment I heard the little widow's cry as she flew to a tree near my window. This was immediately answered by the singer, then calls began from several directions, and I soon saw that a number of mockingbirds were about among the trees. They all set up a great chattering like that of a flock of blackbirds, flying back and forth while they talked in most emphatic tones. Soon five collected in a tree near where the little widow sat watching them with the keenest interest, but silent. What was this meeting for? To discuss politics or was it a matrimonial agency?

One of the birds went over to pay his respects to the little widow, but she ignored him. Returning to the assembled company which had been watching him, another vigorous chirping began, as if arguing over and discussing the situation, until I was wild to understand "bird Latin." One bird seemed to act as chairman, being perched on a limb above, and when he spoke the others were respectfully silent, then all answered him at once. Not seeming to accomplish anything to their satisfaction by this discussion, after a closing address by the chairman, he gave the word and they rose and flew away—one returning to a tree a short distance from where the little widow still sat. My mind was now fully made up that these kind friends of hers had brought her a companion, and after an introduction, had left him to his fate. He was still ignored, for in a few minutes she gave her accustomed cry and flew down in the yard to feed. For a week she came at night to the Banksia rose, and fed about the lawn during the day, always alone, the stranger keeping his distance, though often visible in the orchard.

At the end of the week I heard a new bird song. It came from the tree where the assembly had been held. Thinking I had found a new warbler, I slipped out to a seat near this tree, and waited patiently for my bird to reveal itself. It was very careful to keep the body of the tree between me and it, when I tried to see it, but all the time the song rippled on; the sweetest, softest and richest notes it was ever my good fortune to hear. I sat entranced for a few moments, then I heard a familiar "to-whit, to-whit" of the mockingbird, betraying the identity of the shy songster. But still this wondrously sweet song went on, in the most coaxing, enticing tones. I then heard the little widow's plaintive cry, and here she came, directly to the tree where the stranger was singing. Ah, then! how everything was changed. The singer came boldly out on a limb, and in an exceedingly animated manner, broke forth in the most rapturous, triumphant song.

The same notes, but so much richer and louder. He sang as though pouring forth his very heart at her feet, while she looked calmly down at him from a limb above. After a few moments of this wonderful song, he darted through the tree, alighted by the side of her ladyship and made a dainty, graceful bow, then they took wing and flew away together. The little widow's mournful cry was never heard again, neither did she come back to the rose at night. But often through October the warbling, with all its persuasive trills and twitters, was heard in the trees near the house, and the little widow was always close by. All winter the two remained together about the place, and in the spring began building on a limb that hung above our kitchen door. On seeing my glasses leveled that way, they deserted the half finished home, and took up their abode half a block away, where prying eyes could not discover every detail of family affairs.

* * *

The Northwest Crow

BY J. H. BOWLES, TACOMA, WASH.

On Puget Sound, in the vicinity of Tacoma, the Northwest Crow (*Corvus caurinus*) can hardly be considered as more than a rather common resident throughout the year, and by my observations are never to be found far away from the reach of salt water. This curious trait, together with their fondness for human society, makes them appear much more numerous in this locality than is really the case.

To the uninitiated they might easily be confounded with the Common or American Crow (*Corvus americanus*), but in color they seldom ever approach the glossy black of their larger cousin, some appearing nearly brown. They are also very appreciably smaller, indeed the first I ever saw came near being noted down as a Purple Grackle (*Quiscalus quiscula*) that had wandered a few thousand miles from home. He was on a floating log eating shell-fish and salt water insects, which seem to be their staple of diet with the addition of an occasional bug, berry or caterpillar.

J. H. BOWLES.

Being hardly ever molested in any way, they seem almost ridiculously tame to an eastern observer, accustomed as he is to having a crow take flight at sight of him. It may prove of interest to mention here what impressed me most forcibly in contrasting the birds of the Atlantic Coast with those of the Puget Sound. This was the extreme tameness of the birds in the last named locality. The gulls, birds to be shot in the east only by the most careful stalking, will scarcely take the trouble to move out of the way of a boat, and at the docks rest on the piles and ships that are being loaded, often within fifteen or twenty feet of hundreds of people. So it is with the hawks, the Common Crow and many others.

To return to the original subject, in its nesting *caurinus* differs so completely from *americanus* as to make one think it more closely related to the Rook (*Corvus frugilegus*) of Europe. On the Tacoma Flats, at the head of Commencement Bay, is a small cluster of Siwash Indian houses, which are bordered by a line of scrubby apple and cherry trees. In these trees six or seven pairs of this sociable little crow band together in a colony during the nesting season. The nest is placed in a crotch at a distance from ten to eighteen feet above the ground, the same one being made over and occupied each returning season. On one occasion I saw two occupied nests in an apple tree only twenty feet high. Its appearance differs greatly from that of *americanus*, as it closely resembles a round basket, having a very slight projecting rim of sticks. The average rim of projecting sticks in a series of *americanus* I have found to be 9.78 inches, while that of *caurinus* is only a trifle over 4 inches. The inner dimensions average about 7 inches in diameter by 4 inches in depth. The composition also is nearly the same, only the material used is much less coarse, being a foundation of fine sticks and mud, lined with cedar bark.

Fresh eggs may be found from the middle of April to the middle of May, four or five being the number always constituting a complete set. In color they are indistinguishable from eggs of the American Crow, being subject to about the same variation, and the size also is about the same. Those in my collection average 1.61x1.15 inches, the largest measuring 1.72x1.18 inches, the smallest 1.51x1.13 inches.

The bird clings very closely to the nest, never leaving until nearly reached by the climber. This is due, I think, to its natural tameness, as it then flies to a neighboring tree where very little complaint is made. Generally it is joined by two or three others who appear to discuss the matter in low tones.

At the approach of winter they gather into small flocks of from six to forty, at which period they are more inclined to shyness than at any other season. The call notes are much the same as those of *americanus*, but the "caw" is not, in my opinion, nearly so harsh and the birds are much more fond of talking to themselves. This they do in a soft, throaty tone that is really very fascinating, seeming to be a criticism of everything in general and nothing in particular.

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The Intermediate Wren-tit

BY JOSEPH GRINNELL

The Wren-tit (*Chamæa fasciata* Gambel) is a peculiar species in having its habitat restricted almost wholly to California. True it extends a few miles into Lower California on the south, and into the coast district of Oregon on the north, still the extremes in its geographic variation are undoubtedly to be found within the limits of California. The Wren-tit, as far as my experience goes, is a purely resident species. In fact, it does not even wander locally to such an extent as such resident birds, so considered, as the Song Sparrows. It is therefore not surprising to find the Wren-tit following the usual condition in resident species of this region, and varying from a pale form in the south and interior to a dark colored race in the northern coast district. Parallel geographic variation is exhibited throughout the same range by *Thryomanes, Otocoris, Melospiza, Pipilo and Junco.*

W. H. Osgood in the "Proceedings of the Biological Society of Washington," Vol. XIII, pp. 41-42, has given the subspecific name *phæa* to the extreme northern form, extreme not only in habitat but in the darkness of its coloration. He is undoubtedly right in assigning the type locality of *fasciata* to Southern California, though after looking up Gambel's descriptions and subsequent remarks, I should place it in the vicinity of Los Angeles, rather than in San Bernardino County.

Thus the two extremes of variation are subspecifically recognized. Yet between these extremes there certainly exists an unbroken gradation from one to the other. As Mr. Osgood states, specimens from the vicinity of San Francisco Bay are of an intermediate character, and moreover they are distinct from either *C. f. phæa* or *C. f. fasciata*. Now, trinomial nomenclature is simply a convenient means of recognizing such geographic variations. If the forms from contiguous faunal areas are distinguishable to an appreciable extent, even if the differences are slight, as in the present case, I deem it advisable to indicate them by different names. It would surely be awkward to designate the San Francisco Bay Wren-tits as *phæa × fasciata* or "*fasciata* inclining to *phæa!*"

Chamæa fasciata henshawi, described from Walker Basin, California, is of the extreme pale southern form, and so becomes a pure synonym of *fasciata*, as pointed out by Mr. Osgood, and cannot be used for this darker form. Therefore I feel warranted in proposing for the Wren-tits of the San Francisco Bay region, the subspecific name *intermedia*.

TYPE of *Chamæa fasciata intermedia*, ♂ ad, No. 4211 Coll. J. G.; Palo Alto, Santa Clara County, California; May 28, 1900; Collected by J. Grinnell.

DESCRIPTION—Back and upper tail-coverts, sepia, shading into hair brown on nape and top of head. Lores and small spots on upper and lower eye-lids, pale gray. Throat and breast, cinnamon-rufous, fading posteriorly into pale vinaceous-cinnamon on middle of belly. Feathers on breast, with faint dusky shaft-streaks. Sides, flanks and lower tail-coverts, brownish olive. Under wing-coverts and axillars, pale vinaceous-cinnamon. Wings and tail, clove-brown, the feathers with slightly paler edgings.

MEASUREMENTS OF TYPE—Length, 6.50 (165 mm); wing, 2.37 (60 mm); tail, 3.40 (87 mm); culmen, .45 (11.5 mm); tarsus, 1.04 (26.5 mm).

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A List of Unrecorded Albinos

RICHARD C. MCGREGOR

THERE have been brought together in this list notes on birds either albino or with some white feathers in areas where they do not normally occur. Nearly all the notes have been furnished me by letter and the authority for each follows the description. For descriptions of such specimens as I have examined I am responsible. Twenty-three species are recorded, all from California, except the *Agelaius* from Phœnix, the *Passerella* from Nutchuk, and the *Ammodramus*, the locality of the last being forgotten. Thanks are due Messrs. D. A. Cohen, W. O. Emerson, H. B. Kaeding, C. Littlejohn, T. E. Slevin, F. Stephens and H. S. Swarth, all of whom most courteously gave me the use of their notes and specimens.

Querquedula cyanoptera. — Tulare. Many of the Cinnamon Teal in San Francisco market I have seen, said to come from Tulare, etc., were very light, going so light as to be whitish buff and dirty white. In one consignment of say 150 birds noted about ten years ago over one half of them would have been worth preserving for peculiar plumage. —COHEN.

Rallus obsoletus.—Redwood City, California, Dec. 2, 1892. Coll. C. Littlejohn. The following parts are white: A few feathers on auriculars and many on nape and top of head; secondaries and outer web of third, fourth and fifth primaries of left wing; one secondary, outer web of second, fourth and fifth primaries and inner web of two primaries. Alameda marsh, fall of 1896, a hunter had a California Clapper Rail with white in patches rather uniformly distributed over the entire body so as to give it a gray appearance. Old hunters mention having seen several cases about the same.—COHEN.

Lophortyx californicus.—San Carlos. Nov. 10, 1896, ♂. Coll. C. Littlejohn. The pattern is normal, crest and throat patch black; chestnut spot of breast pale; the remainder of plumage is buffy cream as near as I can describe it.

I have mounted a female quail, probably *L. c. vallicola*, secured from San Francisco market about ten years ago; of a uniform light buff color, the usual white-lined feathers of the under parts being buffy-white and in contrast with the darker color just described.—COHEN.

Lophortyx californicus vallicola. —San

Fernando, Los Angeles County, Oct. 28, 1895, ♀. With the ordinary markings of a female quail, but in color a light yellowish buff.—SWARTH.

Buteo borealis calurus.—Witch Creek, San Diego County. Some years ago I mounted a full albino *Buteo*, probably *B. b. calurus*, killed near here.—F. STEPHENS.

In the foothills of Alameda County I saw an immature Western Redtail with several white secondaries in one wing. Spring of 1899.—COHEN.

Falco peregrinus anatum.—October 13, 1899, Alameda, saw what I took to be a young Duck Hawk, with two white secondaries in left wing.—COHEN.

Melanerpes formicivorus bairdi.—Palo Alto, Mar. 9, 1898, ♀. Outer edges of greater coverts, primaries and secondaries light brown or buff. Tips of these feathers more or less of the same color. This is found on the right wing. The same color occurs on primaries and secondaries of left wing to a lesser extent. It may be well to note that in about one-third of the specimens taken here there are white spots on the outer tail feather, suggesting at once the well known black and white pattern found in many species of *Dryobates*. Spots may be present on either or both of the outer retrices and may involve the outer or both webs. The commonest style consists of two or three spots of white extending from the outer edge about half way to the shaft. These spots may be known as Vestigial Markings and they point probably to an ancestral bird with black and white barred tail.

Calypte anna—Hayward, July 10, 1886 ♀. Many feathers on head, and neck, and a few on back are white; primaries, their coverts, greater and middle coverts, and upper and lower tail coverts, white.

Agelaius gubernator californicus.—Mr. Emerson has a blackbird with one white feather in the breast. This feather is slightly rose in color, the bird being a counterpart of one described by me in *Nid.* III, p. 94.

Agelaius phœniceus.—Phoenix Arizona, April 2, 1896, ♀. Dirty, yellowish white in color all over. Top of head and a spot on the back, rather darker. Exposed portion of primaries and tail-feathers nearly white. Plumage very worn and frayed. Many pin-feathers, about the head and throat, have a decided pinkish tinge.—SWARTH.

Carpodacus mexicanus obscurus.—Tres Pinos, Apr. 12, 1890, ♀. Coll. T. E. Slevin. Many feathers, at least one-half, on top of head are pure white; remainder of plumage normal.

Astragalinus tristis salicamans.—Redwood City, Oct. 23, 1895, ♀ Coll. C. Littlejohn, yellow of head and neck, and dark portions of wings and tail, normal; contour feathers posterior to the neck smoky white, a little paler beneath.

Ammodramus caudacutus.—I once examined a specimen of this species in Mr. Kaeding's collection, having the back flecked with white.

Zonotrichia coronata.—Los Angeles, California, January 25, 1895, ♀ Of a peculiar light golden color all over, with quills of middle tail feathers white. —SWARTH.

Zonotrichia leucophrys intermedia.–Los Angeles. Tail feathers white with a dusky subterminal bar.—SWARTH.

Junco hyemalis oregonus.—In January, 1899, I took at Saint Helena, a junco having a narrow collar of white about the neck.

Passerella iliaca unalaschcensis.—Nutchuk, Prince William's Sound, July 1, 1896, ♀. McGregor Collection. In this bird a few feathers of the neck and base of head are white.

Passerella iliaca megarhyncha.—9000 feet, Tuolumne County, July 2, 1896. White, gray, and green, [sic] back flecked with patches of white; tail white above not showing beneath; wings blotched with white; two primaries white.—KAEDING.

Pipilo fuscus crissalis.—Mr. Littlejohn tells me of a towhee with half the tail white, easily seen as the bird flew.

Passer domesticus.—There was a family of four albino English sparrows last summer in San Lorenzo streets. All were of a dusty white. Last August I noticed one in a garden there. There were also three in a brood in Hayward.—EMERSON.

Hayward, June 9, 1895 ♂ juv. McGregor Collection. A small spot on chin and a patch above each wing black; flight feathers and some feathers of head and interscapular region tipped with dark brown; otherwise the plumage is dirty white.—Taken by Emerson.

Cistothorus palustris paludicola.—Redwood City, Oct. 22, 1899. ♀. Coll. C. Littlejohn. The white parts are: forehead, neck, upper tail coverts, some feathers in top of head, three greater coverts of left wing and all the greater coverts of right wing, and inside of thighs. In this example the white streaks of dorsum seem unusually clear.

Troglodytes ædon parkmanii.—A specimen taken with one white feather in the breast.—EMERSON.

San Gregorio, San Mateo County. Mr. Littlejohn has the wings and tail of a wren in which five primaries of the left wing, six primaries of the right wing, and half the tail are white.

Merula migratoria propinqua.—Winter of 1891 in Alameda, I took a female Western Robin with one white tail feather.—COHEN.

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Nesting of the Eastern Bluebird at Denver, Colorado

FOR five consecutive years a pair of Mountain Bluebirds have made their nest in a box which I fastened under the eaves of my house: (article in *Nidologist* of November, 1894.) The general supposition in such cases is that it is the same pair of birds, and I would more strongly think so in the case of these bluebirds from the fact that they nested two to three weeks earlier than other pairs having to locate themselves.

It was this early nesting last spring (1899) which made possible the rare occurrence I wish to record, viz., the nesting of a pair of Eastern Bluebirds in the same box. By June 10, the young Mountain Bluebirds were able to fly, and had departed or scattered, young and old. A few days later I realized there was another pair about the house, in fact—"birds of another color," with considerable shyness in their nature, and the actions of strangers in a strange land. I thought it best not to bother them too much, as I didn't want to drive them away, so I made no investigation until June 21, which was the date that I obtained the set of five eggs, slightly incubated. They had constructed an entirely new nest, sprawling it all over the one found in the box and the bottom of the box as well, but of similiar construction and material.

It is obvious that if the Eastern Bluebird came to the state every spring and nested, its dates would be later than those of our mountain species by several weeks. I believe, however, that this occurrence has a direct connection with a remarkable find on the part of Mr. C. E. Aiken of Colorado Springs, during the migration of 1899. He had occassion to take a trip to Lincon, a railroad junction about half way to the "eastern border" of the state and there encountered a wave of eastern birds, no doubt driven out of their course by a severe storm, and thrown within Colorado limits to the extent of several additions to our already large list.

These additions will be brought out in a second supplement, now in preparation by Prof. W. W. Cooke, to his "Birds of Colorado."

FRED M. DILLE.

June 20, 1900.

Echoes from the Field.

Early Migration at Stockton, Cal.—*Petrochelidon lunifrons.* On the 15th of March I observed a colony of Cliff Swallows around a country barn, which is the earliest record for Central California, except that this and other species of swallows arrived at Murphys on March 15 in 1876 or 1877.

Tyrannus verticalis. First seen March 24, 1900 or two days earlier than any previous record for Stockton. On the 24th only one was seen and two days later I saw two more. No more appeared for several days, a cold spell having apparently checked migration.

The past winter was a very mild one with little or no frost and no sudden changes in temperature. The season is about two weeks earlier than usual but migrants are about on their usual time. LYMAN BELDING, Stockton, Cal.

Unique Nesting Site of Say's Phoebe.—A friend of mine residing near the foothills west of this city reports a curious instance of the nesting of Say's Phoebe (*Sayornis saya.*) Sitting in an old shed he has a hawk mounted with wings spread, and on the shoulders of the bird, between the spreading wings, a pair of phoebes have built their nest and laid the usual number of white eggs.

W. L. BURNETT, Fort Collins, Colo., May 21, 1900.

Sage Thrasher in Los Angeles Co., Cal.—In Mr. Grinnell's "List of the Birds of Los Angeles Co." this species (*Oroscoptes montanus*) is recorded as a rare straggler from the desert, on the strength of a pair of birds taken by myself near San Fernando on March 13, 1897. At the time these were taken no others were seen and I naturally supposed that they were but accidental visitants. Since that date I have seen them several times in the same locality, and believe that they will be found to be of pretty regular occurrence in the county if looked for at the right time of the year. On Jan. 25, 1899 I secured three specimens and saw at least a dozen more, and on March 21, 1900 I saw a single bird but failed to secure it. All the birds seen were exceedingly wild, and as they are not at all a conspicuous bird, they may very easily be overlooked. H. S. SWARTH, Los Angeles, Cal.

Lewis' Woodpecker as a Flycatcher.—Mr. McGregor's notes on *Melanerpes torquatus* in the March CONDOR, concerning this bird's flycatching habits brings to mind many observations of my own while at Copperopolis, and makes plain to me the cause of their peculiar and erratic flight, which often arrested my attention. Often I have watched them leave a tree and pursue their jerky, irregular flight for a distance and then return to the tree, but as the birds were too far away for me to see the insect and not knowing that they took food on the wing, their actions were attributed to some pecular habit. JOHN M. WELCH, Jamestown, Cal;

Notes From San Luis Obispo County, Cal.—On January 15 a man from the country brought me a cormorant which I took to be the Farallone, (*Phalacrocorax dilophus albociliatus.*) He said he had killed it the night before, while it was sitting on the windmill. The bird had "held down" the windmill the whole afternoon, sitting on the gear, the mill being tied down. The bird was in good condition, so it must have lost its bearings in the night as the place where it was killed is about forty-five miles from the ocean in a direct westerly line. The measurements were as follows: Length, 35:37 inches; bill along gape, 4.10; extent, 54.83; wing, 13.50; tail, 6.75. Bill bluish black on the top; pouch, yellow.

On January 22, I saw a flock of six Mountain Bluebirds (*Sialia arctica*) which is more than I have ever seen together here before.

Have seen quite a number of Mockingbirds (*Mimus polyglottos*) this winter. Two years ago I saw but one pair but as nobody molested them they nested and last year I saw three pairs, and hope that they will increase, for about the only birds who sing constantly around town are the House Finches and Bullock's Orioles.

All the birds are laying early this year. Mr. E. B. Ballard of Creston took a set of two Golden Eagle on Feb. 15 and another set of two of the same species on the 16th of the same month.

Obtained a set of three California Screech Owl, heavily incubated,on the 15th of March. CHAS. S. THOMPSON, Paso Robles, Cal.

The Indigo Bunting in Colorado.—Larimer is the most northern county in Colorado. Situated as it is, the western part is of rugged mountains, the southern and a portion of the eastern is covered with fertile farms while the northern and northeastern is of barren plains, all of which offer to the bird student each year new surprises. This spring we had with us for several days a flock of eight or ten Indigo Buntings (*Passerina cyanea.*) Prof. Cooke in his list of Colorado birds says, "Rare if not accidental. Taken twice in Colorado, once in El Paso County, while the other specimen is in the Maxwell collection." The Maxwell collection is without labels but is supposed to have been taken about twenty years ago in the vicinity of Boulder, Boulder Co. This county joins Larimer on the South. The Indigo Bunting occurs regularly in eastern Kansas, and I think that in a short time they will come regularly to Colorado. One has but to note the changes in this section within the past twenty-five years, the barren plain with only a few trees along the streams has changed to cultivated farms with shade trees and young orchards. In a few years more we will probably be able to add many eastern species to our already large list of birds. W. L. BURNETT, Ft. Collins, Col.

Nesting of Say's Phoebe in California.—It may be interesting to report that on May 1, 1900 I collected a set of four eggs of Say's Phoebe (*Sayornis saya*) near this place, in which incubation was begun. The nest was fastened to the side of a cave and composed of dry grass plastered together with mud. Subsequently I collected two other sets of four eggs each, and Messrs. Morcom and Swarth of Los Angeles kindly assisted in the identification of the birds.

C. B. LINTON, Whittier, Cal.

Notes From Alameda, Cal.—The Sharp-shinned Hawk (*Accipiter velox*) has been commoner at Alameda this winter than ever before. On Feb. 7 I took a ♂ the darkest I have yet noted. It had just eaten a California Towhee (*Pipilo f. crissalis*) and allowed me to approach within forty feet as it sat on the ground where it had been for some time. The hawk was quite thin and one leg had knit over an old break.

In the matter of discoloration of plumage of certain birds as mentioned by Richard C. McGregor in the January CONDOR (p. 18) some of the birds mentioned by Mr. Slevin were possibly shot by me, but the discoloration I attribute to their contact with the foliage of the cypress and pine, especially the latter and perhaps the eucalyptus. The most notable cases of discoloration under my notice have been in the California Purple Finch (*Carpodacus p. californicus*) shot at different seasons among the pines, except perhaps the Arkansas Goldfinch (*Spinus psaltria.*) that feeds on a sort of gummy weed of the thistle variety. The Sharp-shinned Hawk spends considerable time among the pines as does the Desert Sparrow Hawk (*Falco s. deserticolus.*) Specimens of the latter that I have seen have been so soiled as to appear dark on the breast and much soiled-looking upon the wing and tail tips. The Red-shafted Flicker (*Colaptes cafer*) is more or less soiled in individual specimens. It frequents these trees a great deal but a great amount of discoloration is due to its fondness for buildings and unused flues. The House Finch (*Carpodacus m. frontalis*) is often considerably soiled where nesting in pine and cypress trees and often feeds among the tar weed thistles with the goldfinches. A few specimens of Western Flycatcher (*Empidonax difficilis*) and Russet-backed Thrush (*Hylocichla ustulatus*) taken breeding in pine and cypress groves showed no soiled plumages.

Replying to Mr. Joseph Mailliard's remarks in the CONDOR (I. 54) as to which sex predominates in winter residents in different localities, I give my observations for Alameda and vicinity;—Dwarf Hermit Thrush (*Hylocichla aonalaschkæ*) ♂; Ruby-crowned Kinglet (*Regulus calendula*) ♂ to a noticeable degree; Western Robin (*Merula m. propinqua*) ♀; Varied Thrush (*Hesperocichla nævia*) ♀; Oregon Junco (*Junco hiemalis oregonus*) all ♂'s of over forty specimens taken during the past few years except ♀ March 11, 1899, ♀ March 24, 1900 and ♀ Alvarado, April 24, 1897; Anna's Hummingbird (*Calypte anna*) all ♂'s in midwinter. Mexican Horned Lark (*Otocoris a. chrysolæma*) the few specimens taken were ♂'s; House Finch (*Carpodacus m. frontalis*) mostly ♂'s, often seen in pairs; California Purple Finch (*Carpodacus p. californicus*) mostly ♂'s, in plain garb; Cabanis's Woodpecker (*Dryobates v. hyloscopus*,) a few noted, all ♂'s; California Clapper Rail (*Rallus obsoletus*) ♀'s by a large majority. D. A. Cohen, Alameda Cal.

Notes From Los Angeles, Cal.—I do not remember having seen the Pileolated Warbler (*Wilsonia pusilla pileolata*) recorded as occurring in California during the winter, and I was considerably surprised to see one of this species feeding in a willow tree in the vicinity of Los Angeles as late as November 11, 1899. A few days later, happening to be passing the place again I saw apparently the same bird and after that I found that I was almost sure to find it within a few hundred yards of the spot, by looking for it. I saw this bird almost every week all through the winter and kept track of it until about the end of February, 1900 when it was lost to view.

During October and November 1899 I saw several Townsend's Warblers (*D. townsendi*) in this vicinity. They are quite rare here in the fall and I have probably not seen more than eight or ten in the last six years, but it is a singular thing that the fall birds are, without exception, females. In the spring they are rather more numerous, some years being quite abundant, but all that I have ever seen or taken around here in the spring were males.

On October 30, 1899 I took an adult female Black-throated Gray Warbler (*D. nigrescens*) which I think is the latest they have ever been recorded from here. I also saw a Macgillivray's Warbler (*Geothlypis tolmiei*) on what I think is a very late date for this bird, Oct. 24, 1899. I did not secure the bird but was close enough to it to see that it was either a female or an immature bird.

Brewer's Sparrow (*Spizella breweri*) I have noted several times this winter, although I do not believe that it is known as a winter resident here. On Dec. 27, 1899 one was seen near San Fernando sitting on a bush singing; on Mar. 2, 1900 one was secured near Los Angeles, and a day or two later several more were seen. On May 2, 1900, they were seen near San Fernando in flocks of a dozen or more, H. S. Swarth, Los Angeles, Calif.

Tape Worm in Young Mountain Quail.—About one in ten of the young Plumed Quail (*Oreortyx pictus plumiferus*) in Nevada, Placer, Eldorado and probably other counties in the Sierra Nevadas are infested with tape worms. I have found the worms in the entrails, in the abdominal cavity and frequently under the loose skin of the abdomen, especially between the thighs and body. As I have never found a tape worm in an adult I suppose the young afflicted quails die before they reach maturity. I can usually distinguish the diseased bird by its sickly appearance. I do not know that these tape worms are dangerous to man but have reasons for thinking they are. Since 1885 I have never eaten a young Mountain Quail without skinning it and examing the bird very carefully. How the bird acquires the worm and what the name of the latter is,—if it has one,—is unknown to me. I have made three ineffectual attempts to get the species identified through alcoholic specimens, but failed to get a report. Have been informed that tape worms are sometimes, though rarely, found in the young Sooty Grouse of the Sierra Nevadas. Lyman Belding, Stockton, Cal.

Nesting Notes From Tacoma, Wash.—The unusually warm spring has started the birds to housekeeping some two weeks earlier than is customary with them. An incubated set of two eggs of Allen's Hummingbird (*Selasphorus alleni*) was found on April 14, and the mother bird sat with the utmost composure to have her photograph taken at a distance of five feet. She seemed to feel that the two little pearls under her were perfectly safe in her keeping, and I am happy to add that she was not disappointed. On the 17th of April a set of two eggs of the same species was found on the point of hatching.

A nest of the Bush-Tit (*Psaltriparus minimus*) containing seven fresh eggs was noted April 12. One of the most curious changes in nesting habits has occurred this season in a colony of Brewer's Blackbirds (*Scolecophagus cyanocephalus.*) In previous years they have nested in holes of the Red-shafted Flicker high up in some dead firs, but a visit a few days ago disclosed the remarkable fact that every bird is nesting in gooseberry bushes, no more than three feet from the ground. There is no apparent reason for this change of some seventy-five feet in altitude, for the holes used in previous seasons still appear to be in as good condition as ever. J. H. Bowles, Tacoma, Wash.

Western Winter Wren in Santa Clara Co., Cal.—I notice that Mr. Van Denburgh's county list does not give the Western Winter Wren (*Anorthura hiemalis pacifica*) as occurring in Santa Clara County. One specimen was taken Feb. 17, 1900, at Stevens Creek by a party of Stanford students, and is now in my collection.

Robert E. Bruce, Stanford University, Cal.

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Book Reviews

Bird Studies With a Camera.—By Frank M. Chapman, pp. 214, with numerous half-tone illustrations. D. Appleton & Co., New York. Cloth. $1.75.

In this day of bird photography, when enthusiasts are afield by the score each summer seeking out the haunts of nesting birds, it is a pleasure to be taken into the confidence of one who speaks not authoritatively of his own work, but whose results bear eloquent testimony of his adaptability to bird photography. Unquestionably Mr. Chapman holds the position in America which the Kearton Bros. have long held in England,—that of the most successful portrayer of bird life with the camera.

In his substantially entertaining book Mr. Chapman does not stop to indulge in photographic theories and the like, but proceeds at once to illustrate his subject in a most pleasing manner. After discussing briefly and generally the apparatus necessary for successful field work, and explaining the work which may be expected of the various patterns of lenses, the author has combined his experiences into appropriate groups and takes the reader afield with him to witness, in imagination, just how the various negatives were secured.

There is not a dry paragraph in the book, nor scarcely one which does not relate Mr. Chapman's personal experiences, all of which gives the work immeasurably greater interest than would a mere treatise on the subject. The chapter delineating the home life of the Chickadee and portraying a family of nine fledglings is one of the most delightful in the book, although the chapter devoted to photography in a swamp would prove a close second. Over 100 excellent half-tone illustrations by the author, depicting marsh, land, shore and sea birds in their homes, lend additional charm to the volume. Those who have already engaged in similar work afield will find many excellent suggestions in the work, while the beginner will be enthusiastically impressed with the field of delightful possibilities which lies before him. *Bird Studies With a Camera* is easily the most striking and valuable work on bird photography which has appeared in America. —C. B.

A Monograph of the Flicker (*Colaptes auratus.*)—By Frank L. Burns. Wilson Bulletin No. 31. April, 1900, pp. 82. One plate.

Another substantial publication is credited to the Wilson Ornithological Chapter in the appearance of this exceedingly complete publication. Mr. Burns has collaborated his results in a more systematic and pleasing manner than even that which marked the able Crow Bulletin issued under his supervision some years ago, and the present publication is in fact what the name implies,—a monograph. The paper opens with a list of the scientific and vernacular synonyms of this species, the latter reaching the surprising number of 88, and giving the localities in which each name is current. The life history of the species is then taken up in consecutive chapters such as Geographical Distribution, Flight, Migration, Roosting, Voice, Mating, Nidification, Eggs, Incubation, Young, Molt, Food, Plumage, Hybridism, Atavism, each chapter being singularly valuable in its deductions. The entire paper is obviously the product of careful study and thought and embraces notes from a wide list of field workers. This monograph should be in the library of every working ornithologist.

Legislation for the Protection of

Birds Other than Game Birds.—In this publication constituting Bulletin No. 12 of the Department of Agriculture, Mr. T. S. Palmer discusses protective legislation, and in separate chapters refers to Game Birds, Birds Erroneously Considered Game Birds, Insectivorous and Song Birds, Plume Birds, and other groups, defining the species which properly belong to each. The paper comments upon the needed enforcement of existing protective statutes and suggests the adoption of further restrictive laws. The laws of each state and territory protecting game and song birds are given in full, and the 90 pages constituting this bulletin will be found a complete digest for those interested in the subject.

* * *

Communications

The A. O. U. Associate Membership

Editors of The Condor:

The question discussed by Mr. Daggett in the last issue of this paper is one which undoubtedly interests many of the associate members of the A. O. U., and for an answer we must look to the active members.

During the last few years the associate membership has greatly increased and it seems to be the policy of the A. O. U. to include therein anyone who will pay $3 a year as subscription to the *Auk*. The consequence is that the associates now include many who have no claim to be called ornithologists or oologists; some are not even Audubonists.

I think we all agree with Mr. Daggett that the standard of membership in the active list should be high, too high for most of us, who have but a little time to devote to our favorite study. Though we cannot aspire to be numbered among the august fifty, we do feel that there should be some distinction between the amateur ornithologist and the bird protectionist. Because a woman declines to wear mangled bird remains on her hat or as trimming for her clothing, is she to be called an ornithologist?

There are two possible remedies. The active membership might be greatly increased or a new class of members established, a sort of junior active membership. There are four kinds of members already and another kind would do no harm.

The fact that there are now three vacancies in the active list indicates that none of the associates are considered eligible to membership among the fifty.

I have but little time to spend with my birds and am content to be connected in any way with the A. O. U., but I do register a kick against being placed in the same class with Audubonists and fad protectionists.

Richard C. McGregor.

Seattle, Wash.

General News Notes.

An especially pleasing wedding took place at Oakland, Cal. on June 6 when Mr. Wm. W. Price, a prominent member of the Cooper Ornithological Club, was united in marriage to Miss Bertha de Laguna. Mr. Price has established a record for careful and energetic ornithological work on the Coast, among his best early field work being the taking of the first nest and eggs of the Red-faced Warbler in the mountains of Arizona. He has since done extensive scientific work in the Sierra Nevada Mts. and along the lower Colorado River. Several years since Mr. Price conceived the idea of establishing a summer school for young students in the heart of the Sierras, and the popularity of his classes was at once pronounced. Those who have been with Mr. Price afield have returned only to admire his intense congeniality and ability as an ornithologist. The members of the Cooper Ornithological Club, besides his numerous friends elsewhere, will unite as one in wishing Mr. and Mrs. Price every good fortune and pleasure in life.

Percy Selous, prominently identified with Michigan ornithology, and favorably known as an authority in other sciences, died on April 7 at his home from the result of a bite of a poisonous snake, of which he had a number, kept for the purpose of study. Mr. Selous was at one time an associate editor of the *Bulletin of the Michigan Ornithological Club*, and in recent years has been a prolific writer in various natural history journals. His sudden death will be widely felt by the ornithological fraternity.

Three members of the Cooper Club, Messrs. L. E. Taylor, W. L. Atkinson and C. Barlow spent the interval of June 4—12 in the higher Sierras collecting specimens. During the trip an ascent was made to the summit of Pyramid Peak, an altitude of 10,020 feet. Specimens of the Gray-crowned Leucosticte, California Pine Grosbeak, White-crowned Sparrow and other interesting Sierra birds were collected. The oological results of the trip may form the basis for a future paper.

Wilfred H. Osgood of the Biological Survey accompanied by Edmund Heller of Stanford, as assistant, sailed from Seattle in May. These gentlemen have been detailed to make collections of birds and mammals on the islands off the coast of British Columbia and as far north as practicable. It is expected that the material collected will contain many forms connecting the faunæ of Alaska with those of Washington and the results are awaited with interest.

Joseph Grinnell is acting as instructor in embryology at the Stanford summer school now in session at the Hopkins Labratory at Pacific Grove, Cal.

THE CONDOR.
Bulletin of the
COOPER ORNITHOLOGICAL CLUB
OF CALIFORNIA.

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EDITORIAL NOTES.

To the activity of the A. O. U. Committee on Bird Protection and the Audubon Society is largely due the agreement which the Millinery Protective Association was forced to enter into recently. This agreement, although almost entirely prohibitive of the use of the plumage of American birds for millinery purposes, is probably a more generous concession than the Millinery Association would have secured had they not conciliated the efforts of the bird protectionists. The public is familiar with the text of the Lacey Act introduced by Hon. John F. Lacey of Iowa during the last session of Congress and which was calculated to protect and restore the wild birds of America. The bill contained sweeping clauses prohibiting the interstate shipment of all birds killed in violation of any state or territorial law and the pressure brought to bear upon Congress for the passage of the bill was so wide-spread that its fate was never in doubt.

The millinery fraternity, observing this, lost no time in making terms with the A. O. U. Committee on Bird Protection and an agreement was entered into by both parties. By its terms the milliners agree not to "kill or buy any more North American birds from hunters or such people who make it a business to destroy North American birds." The dealers will be allowed until Jan. 1, 1902, to dispose of the stock of birds now on hand and they claim in return the privilege of using "the plumage or skins of barnyard fowl, edible birds or game birds killed in their season and birds of foreign countries *not* of the species of North American birds."

While the Millinery Association has consented to terms, it is equally evident that the action was brought about not because they recognized a wrong or desired to correct it. Previous to this time they have, as a body, persistently ignored the protectionists, and now when their trade is threatened with annihilation, they are forced to consent to anything which will admit of the enormous stock now on hand being utilized. The protectionists have scored a signal victory and the arch-enemy of the Audubonians has met with a complete rout!

Without doubt a great mass of sentiment in favor of the Lacey Act came from the constituents of the senators and congressmen throughout the Union. All were not Audubonians—perhaps but a small percentage—but the fact remains that through the constant agitation of the question of bird protection, the public has become inspired with an interest in wild birds, and the influence has been wide-spread. To this was directly due the passage of the act and the forcing of the milliners into an agreement.

The Audubonians and all other bird protectionists have won a victory worthy of their efforts, and have secured protection for the birds in a manner so thorough and sweeping that its accomplishment seems little short of marvelous. To the Hon. John F. Lacey belongs a vast amount of credit for his persistent work in Congress in behalf of bird legislation, and the fund now being created by *Recreation* of New York City with which to purchase an appropriate testimonial for Congressman Lacey should be generously patronized by ornithologists.

June has been productive of another aspirant to the field of ornithological journalism, in the form of *The Bittern*, published by Glen M. Hathorn at Cedar Rapids, Iowa. The initial number consists of twenty pages, well printed, the leading articles being "My Bittern Bog," by P. B. Peabody, "Ptarmigans" by Morris Gibbs and "A Day Afield" by Glen M. Hathorn. We extend to *The Bittern* our well wishes for its success as a magazine of the middle west.

Those who have whiled away weeks or even days in the great timber-belt of the higher Sierras, will find their natures chording involuntarily with the sentiment which marks Mr. Belding's Sierra poem on another page. Mr. Belding is easily the veteran ornithologist and naturalist of this great region, and little wonder it is that after many summers spent in its great forests of conifers and along its mountain streams, that his nature gives expression to some of the impressive beauties it has absorbed.

In this issue of THE CONDOR, Mr. Jos. Grinnell does a valuable service to ornithologists whose lots are cast in the San Francisco Bay region. The over-lapping or intergradation of the northern and southern races of many species often reaches its most puzzling form in this region, making work among the birds at best unsatisfactory, as the majority of the *Pipilos, Juncos* and others are not separable into any of the several distinct races. Mr. Grinnell proposes to overcome this in the Wren-Tits by describing an intermediate race for the Bay region. This seems an easy and correct solution of the difficulty, and it is to be hoped that the other groups will receive similar treatment. Eastern workers generally know little of the troubles which beset their western brethern because of this intergradation of species.

As will be seen in another column, the fine scientific collection of the late Alphonse Forrer is offered for sale, and it is to be hoped that it will be secured by some Californian museum. Mr. Forrer did much work on the Tres Marias Islands off Mexico and his collection is correspondingly strong in western material. We learn that the mammal and bird skins alone are valued at $1800, while the rest of the collection consists of reptiles, fish, insects, crustacea, starfish and marine mollusca valued at about the same amount. The entire collection is to be offered at $500, and should find a ready purchaser.

The small cuts of contributors to THE CONDOR, which were begun in the May-June issue, will be made a permanent feature of this magazine as opportunity permits. That the portraits of ornithologists are enjoyed by the readers of THE CONDOR is evident from the numerous letters received since the idea was inaugurated, and the magazine therefore takes pleasure in continuing to promote acquaintance among the fraternity.

A correspondent who has evidently been following Volume I of THE CONDOR carefully, informs us that a count shows a total of 85 papers presented by 35 contributors during 1899. When it is remembered that these papers represented original observations only, one may judge of the amount of new material put forth by the Cooper Club during the past year.

* * *

Official Minutes of Southern Division.

MAY

The Division met May 31 at the residence of F. S. Daggett. In the absence of the president and secretary, Mr. Daggett presided and Mr. C. A. Moody acted as secretary pro tem. Mr. Rising exhibited an egg of the California Vulture taken in the Santa Monica Mts. recently. A paper by John J. Williams of the Northern Division was read. It was voted that a committee of two be appointed to draw up and secure the passage, if possible, of an ordinance prohibiting the destruction of birds or their nests within the city limits of Pasadena. Also to devise methods of stirring up public sentiment through the press, public schools and elsewhere in this direction. Rev. F. Reiser rendered Mr. Lyman Belding's recent productions, "Songs of the Meadowlark" and "Thrush Songs of the Sierra" in a delightful manner upon the piano. The usual discussion and refreshments followed.

JUNE

The regular meeting of the Division was held June 29 at the studio of Roth Reynolds in Los Angeles, with Mr. McCormick in the chair and Lee Chambers acting as secretary pro tem. Eight members were present, with Dr. Corwin as a visitor. Mr. J. Eugene Law of Pomona was elected to active membership in the Club. The name of Mr. A. L. Lapham was proposed for membership to be acted upon one month hence. An interesting discussion of the museum question was had, Mr. Hahn, one of the committee, reporting. Mr. Reynolds followed on the same question and offered his studio as a Club museum.

LEE CHAMBERS, Secretary pro tem.

Official Minutes of Northern Division.

JULY

The Division met July 7 at the residence of Donald A. Cohen in Alameda, with eight members present and Mr. Forrest Hanford as a visitor. President Emerson presided. The following were elected to active membership in the Club: Messrs. J. O. Snyder, Walter K. Fisher and Robt. E. Bruce of Stanford University and James M. Hyde of Palo Alto. A standing committee consisting of Messrs. E. K. Taylor, D. A. Cohen and W. O. Emerson was appointed to confer with the Sportsmen Protective Association this fall with reference to securing the passage of proper laws protecting wild birds not already afforded protection by the statutes. The following papers were read: "Notes on the Long-billed Curlew," by P. M Silloway; "The Northwest Crow," by J. H. Bowles. Mr. Barlow then outlined the results of an expedition made by three of the members of the Cooper Club to the higher Sierras in June, and exhibited a number of skins and photographs by way of illustration. The Division adjourned to meet next at Santa Clara September 8.

C. BARLOW, Secretary.

* * *

A. W. ANTHONY, who during the last year has been mining in Plumas County, sailed from Portland May 24, for Nome City, where he has been engaged to work mining claims.

Publications Received

Bailey, Vernon. Revision of American Voles of the Genus Microtus. North American Fauna No. 17.

Burns, Frank L. A Monograph of the Flicker (*Colaptes auratus*). Wilson Bulletin No. 31, April, 1900.

Chapman, Frank M. Bird Studies With a Camera. (See review.)

Palmer, T. S. Legislation for the Protection of Birds other than Game Birds. Bulletin No. 12, U. S. Dept. of Agriculture, May, 1900.

Bird Lore, II, No. 3, June, 1900.

Bittern, The, I, No. 1, June, 1900.

Bulletin No. 12, Dept. of Agriculture, May, 1900.

Chautauquan, The, June, 1900.

Land of Sunshine, The, XII, No. 6, May; XIII, No. 1, June, 1900.

Maine Sportsman, VII. Nos. 81, 82, 83 May, June, July 1900.

North American Fauna, No. 17, June 6, 1900.

Oologist, The, XVII, No. 6, June, 1900.

Ornithologisches Jahrbuch, XI, No. 3, May—June, 1900.

Osprey, The, IV, No. 9, May, 1900.

Our Animal Friends, XXVII, No. 10, June, 1900.

Our Dumb Animals, XXXII, No. 12; XXXIII, No. 1.

Plant World, III, No. 5, May, 1900.

Popular Science, XXXIV, No. 6 and 7, June, July, 1900.

Proceedings of the Delaware Valley Ornithological Club (abstract), 1898—1899, No. III, Philadelphia, 1900.

Recreation, XII, No. 6, June; XIII, No. 1, July, 1900.

Sports Afield, XXIV, No. 6, June; XXV, No. 1, July, 1900.

Sunset, V, No. 1, May, 1900.

Western Ornithologist, V, No. 3, May-June, 1900.

Wilson Bulletin, No. 31, April, 1900.

* * *

Current Magazines

Mr. Leander S. Keyser has contributed articles on the birds of the Rocky Mountain region to *Our Animal Friends* in several of its recent issues. Perhaps the most interesting is a sketch of the birds of Pike's Peak, Colo., appearing in the July issue.

The June number of *The Land of Sunshine* contains some exquisite hummingbird pictures, together with an interesting article by Elizabeth and Joseph Grinnell.

Bird-Lore for June is unusually interesting. Robert Ridgway compares the song birds of America with those of Europe in an able article, and shows conclusively that we possess as brilliant, if not superior, songsters as do the British Isles. Wm. L. Bailey illustrates the stages of development of the Kingfisher from those just hatched to the bird about to fly, his observations forming a most interesting article.

The *Western Ornithologist* for May—June is the best number of this publication yet issued, and contains as frontispiece a full page cut of one of its associate editors,—Carl Fritz Henning. Some remarkably good photographs of young birds are shown and the usual interesting articles fill out the number.

The May number of the *Osprey* is the last received previous to going to press. The serial article by Paul Bartsch entitled "Birds of the Road," which has thus far run through five issues of the magazine, is a really charming essay and is without doubt the popular feature of the *Osprey*. Mr. Bartsch writes in an easy, graceful vein and exhibits the true enthusiasm of a nature-lover.

* * *

Roswell S. Wheeler of Alameda, a member of the Cooper Club, has been appointed instructor in political economy in the Alameda High School.

Forrest Hanford, formerly interested in ornithological work in the vicinity of Carson City, Nev., has removed to Oakland and will unite with the Cooper Club.

June 21 noted an interesting arrival at the home of Harold C. Ward in Alameda in the shape of an heir apparent to the Ward collection. Mr. Ward is receiving the congratulations of his fellow members with the dignity becoming his station, while Mr. Cohen has announced his intentions of immediately fencing in his heron preserve!

THE CONDOR.

Bulletin of the Cooper Ornithological Club.

A Bi-Monthly Exponent of Californian Ornithology.

Vol. 2. No. 5. **Santa Clara, Cal., September-October, 1900.** $1.00 a Year.

Probable Causes of Bird Scarcity in Parts of the Sierras

AN ARRAIGNMENT OF THE CHIPMUNK

BY JOHN J. WILLIAMS, INDEPENDENCE LAKE, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 15, 1900]

COMPLYING with the request of the Club's secretary, I have gathered into readable shape all of my summer's notes on the existing causes of bird scarcity in the Lake Independence region of the Sierras, believing that similar causes are probably active in other localities, and will yield interesting results if studied more in detail. Roughly speaking, these causes can be classed under two heads, viz: destruction due to (1) bipeds, and (2) quadrupeds; the former to include man, the raptores and the Blue-fronted Jay; the latter to include chiefly the chipmunk. I will turn first to biped destruction and briefly consider it, as it is the lesser of the two evils. The small boy with his mania for collecting or harming the nests or young of birds in this and similar sections is a rare article, scarcely to be noticed, but grown people, with the inevitable small caliber rifle, have in years past been important factors in bird scarcity here. However, the practice has been discouraged by the management within the last four years, so that this year very few instances of the useless killing of birds have come to my notice, the chief one being the wanton killing of one of six sea-gulls that are found on the lake yearly. This was done by a person who believed that there was a fine for such offenses, but who, on August 11, willfully shot one for lack of something else to shoot at. The destruction due to raptores is in no way greater here than it is elsewhere, and the Blue-fronted Jay, whose bad reputation is known so well, is only infrequently met with, so that he, too, need not be considered.

JOHN J. WILLIAMS

I have no notes on the damage done by quadrupeds, other than chipmunks, and do not believe it is greater here than in other localities, but the following notes on the mischief done by chipmunks, while far from complete, will show in a way how great is the damage done by them yearly. During my outing here in July, August and September of last year, I noticed the scarcity of birds but attributed it to casual or temporary causes of the year, as is frequently the case. On my return a month earlier this year, birds were common until about June 24. Up to that time, owing to the increased number of migrating birds and the greater number of bird songs due to the mating season, the scarceness of resident birds was not noticeable, but from that date on there was a change. Species had followed species on their northern journey and although many stayed quite a while, I soon saw that the bulk of them were leaving us. Gradually, as the rest settled down to home life, their mating songs decreased in frequency and I found that last summer's scarceness was to be this year's share as well.

On the 6th and 10th of June I noticed various birds, such as robins, bluebirds and flycatchers, driving chipmunks out of trees, and I will add that this fact was noticed by myself and others frequently during June, July and part of August. It was interesting and amusing, and thinking I might find out the reason, I began to watch them. On the 12th I caught a chipmunk in the act of robbing a robin's nest. The parents were both away at the time and when I first noticed him, one of the old birds had returned and was driving him down the tree trunk. Finally he had to drop his booty in order to escape the bird's wrath, and then quickly got away. On picking it up, I found I had the first piece of evidence against the little animals, for in my hand lay a very young robin in his last struggle. After a short search under the tree I found another dead young bird, almost under the nest, out of which he must have been ejected, either accidentally or forcibly. The chipmunk that did the deed was the only one of the larger ones that I have seen doing harm to the birds, but all three sizes of these little animals do such work, whether they are one species or several. On June 16 I found three small-sized chipmunks engaged in a three-cornered tug-of-war over the arm of a very young bird, and on getting closer to them they scurried off, leaving the mutilated remains behind them, but in this case I only succeeded in finding an empty nest so that I was unable to to identify it or the arm.

On June 24 I found the dead body of a very young bird near an old stump, where innumerable chipmunks dwelt, so I withdrew to a distance and with my glass watched the bird closely. As soon as they felt sure I had gone, the chipmunks began scampering around again, and in a short time one came across the young bird and quickly retired with it to a hole in the stump. Whether he had dropped the bird on hearing me coming or had simply found it accidentally, I am unable to say. On June 28, hearing a lot of noise between some small birds and a chipmunk, I went nearer to see what the trouble was and found a pair of Pileolated Warblers trying to drive a chipmunk away from their nest. They were successful finally, but not until the chipmunk had been also, for the nest contained four young birds the day before and when I visited it this time all I found was one dead bird with two fresh wounds in its back and one live one, which I returned to the nest. On the following day I revisited the nest and found that something, probably the same animal, had made of with the remaining bird. This same day I found two more warblers' nests, one more than a hundred feet away from the first one and the other bu forty feet away, this last one containing four eggs, apparently well incubated. Five days later, on July 2, I returned to the nest but it was empty and the hai lining partly torn out. However, believe it had only been done a shor time before as both parents were nea and anxiously watched me, while at th same time there appeared to be a lively time in a nearby chipmunk residence. On July 5 I witnessed the most darin piece of mischief done by the chipmunks.

Some time before I had found a nest of young Snowbirds, and on the 5th I visited them for the last time to see them take their initial flight. It was a fine day and I was soon rewarded for making the trip, the birds leaving their nest quickly after the first one led the way. For awhile it was all right, but soon two became entangled in the long grass near the nest and in a minute there was quite a commotion. After awhile one flew out but he was no sooner out than he was pounced upon by a medium-sized chipmunk that had followed him and I at once knew what had caused the commotion. The chipmunk was as quick as a cat, and by the time I got there and drove him off, the bird was dead. I hunted around quite a while for the other one but was unsuccessful, so I watched the two remaining ones until they were safe. One week later almost the same occurrence was repeated about five miles away, but in this case I managed to lay the chipmunk out for good, while he in turn only killed one of the young Snowbirds. On July 16, the last piece of evidence was seen by me, when two young Louisiana Tanagers were thrown from their nest suddenly during a struggle that occurred between one of the parent birds and a medium-sized chipmunk. The latter was bent on mischief and the young ones either were frightened out of the nest while the male bird attacked the animal, or else fell out accidentally. It also showed me a new trait in the character of the adult bird. On July 27 I noticed several chipmunks being driven away from some tamarack trees on the lake shore, by a band of Mountain Chickadees. Later on I found that a pair of these birds had a nest in one of the trees, and I presume that when they found the chipmunks were bent on mischief, they summoned their mates to help them, as they and the flycatchers often do.

My summer's notes contain no more direct evidence against them, but naturally, after a close study of the habits of these animals and their results to the lives of our young birds, I have arrived at certain conclusions in regard to them which I give as being pertinent to this article. To begin with, the few instances that I have come across in a summer's work of destruction done by chipmunks to birds, would undoubtedly be greatly multiplied if systematic attention was paid to their wrong-doings by a larger number of observers, so there would then be no doubt as to their being to blame for a considerable percentage of the scarcity of mountain birds. In thus laying part of the blame on the chipmunks, we unconsciously give them some competitive advantage over the birds of their own habitat, or else we must grant that the agencies of man interfere in some way to their good, for were it not so their relative numbers would remain the same and nature's balance would continue undisturbed. After studying them closely for a long time, I have been unable to see where any agency of man interferes advantagously to the chipmunks, for the small amount of food they derive from us, is in itself insufficient to account for their increase in numbers over the birds; our presence affords them no better protection from their enemies or from climatic conditions, and in no other way can I make out that man or his agencies work to their advantage. Therefore in allowing that they possess some competitive advantage over the birds of their own habitat, with whom they enter into severe competition during the active portion of their lives, I have been led to compare in detail their habits, one by one, with similar features of the birds of the vicinity, in order to find out what was the nature of this advantage, and I consider that it is directly due to the much more varied food supply of the chipmunk.

Indirectly too, the limiting and absence of great variation of the food supply of birds, decreases the extent of their range and confines them to special areas. But it is only these conditions *combined* with the destruction of the young birds by the chipmunks, that give the latter supremacy in the mountain forests. Stop the damage that is being done to their young by the chipmunks and the birds would increase as rapidly here as they do elsewhere, for here as in other localities they have accommodated themselves thoroughly to the existing conditions imposed on them by the nature of their surroundings, except when it comes to the mischievous little chipmunks. With these rodents, so far, I believe they have been unable to cope. If we go into this conclusion in detail, we find that it is borne out by facts, for in the mountain forests of this section, large upland areas densely clothed with timber, are found to be practically devoid of bird life, and only the drumming of the woodpecker, the quirring note of the nuthatch and the frequent chatter of chipmunk or squirrel attracts the attention of the wanderer; but as one approaches the damp or brush-covered flats along the streams we become aware of a change, for from all sides come the notes or songs of birds innumerable and the roar of the cataract only serves as a setting for the pleasing note of the Water Ouzel. Here we find not only the great bulk of the flowering plants, but the birds whose very existence is in a great measure dependent on their blossoms or seeds; and here too we find the chipmunk, feeding as readily off of wild gooseberries, sunflower seed or columbine root, while here is where he does more damage to growing birds than elsewhere, because their nests are met with more frequently. From a close study of the birds themselves, I have found that those birds which nest on or near ground other than marsh land, are much less apt to rear their young to maturity, while those that nest in or near marshy soil or marsh grass or in the vicinity of occupied buildings are comparatively free from molestation by chipmunks. Pileolated Warblers, Juncos and similar birds belong to the former class and are much scarcer here than they should be, while robins, sparrows, bluebirds and others rear from one to two broods annually in safety. The chipmunks are continually prying around old logs, bushes or trees that are situated on dry land, but they cease their investigations as soon as they come to marshy soil, marsh grass or localities frequented by man. In illustration of this I will add that a great many birds took advantage of the hotel and cottages this year, by nesting near them, and in no case did their young come to harm and chipmunks were seen very rarely in the vicinity of their nests while the place was overrun with people, but as soon as they had materially decreased in numbers, chipmunks increased in like amount but could not injure the young birds as they were nearly all gone. I might also show how several species of flycatchers have held their own here and are numerous, owing to the acuteness of their vision, which enables them to outwit these little animals, and several other instances of special faculties rendering aid to their avian owners could be introduced, but I believe I have at least outlined the subject so that others may follow it out more in detail.

It is also not assuming much to say that in such a region of cone-bearing trees, the family *Picidæ* would be much better represented were it not for the presence of the chipmunks, who very probably take advantage as occasion offers, to visit the birds' homes while they are absent in quest of food for their young. Curiosity in the young, tempered by wariness in the older ones has, I feel sure, led them far in this work of destruction, for originally I do not believe chipmunks were in any way carnivorous. In conclusion, the advantage that the chipmunks possess over the birds of their habitat, is a more diversified food supply, making their annual increase many times larger than hat of the birds and were it not checked yearly they would soon overrun their range to the exclusion of all the more susceptible forms of life in it and nature's natural adjustment of all varieies of life would be lost; but the chipmunk during his life undergoes a far greater rate of mortality than the birds do from various sources, so that the large annual increase is almost lost by the advent of the following season and nature's balance is thus maintained.

* * * * *

Nesting of the Rivoli Hummingbird in Southern Arizona

BY O. W. HOWARD, FT. HUACHUCA, ARIZ.

[Read before the Southern Division of the Cooper Orn. Club, July 26, 1900]

DURING the spring of 1899, while camped near the summit of the Huachuca Mountains, Ariz., I spent considerable time watching the few Rivoli Hummingbirds (*Eugenes fulgens*) which I chanced to see, in hope of finding a nest or two. The birds were generally hovering over flowers, evidently feeding, and would soon disappear in the distance, possibly to the maples in the canons below where they usually nest.

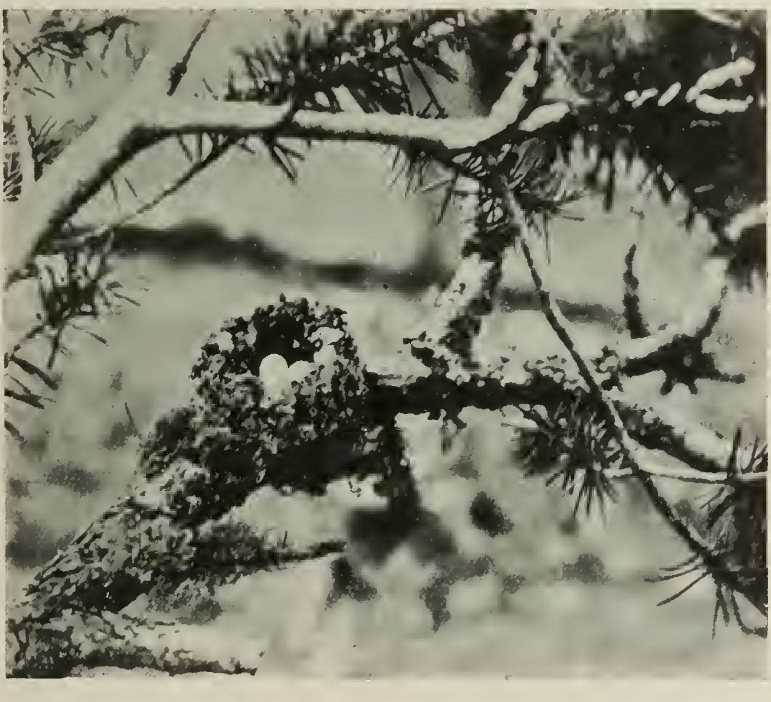

Photo by C. W. Howard

PLATE I. NEST AND EGGS OF RIVOLI HUMMINGBIRD (*Eugenes fulgens*)

I had about given up finding any nests, as the season was well advanced, but was somewhat encouraged when one morning early in July a female Rivoli Hummer made her appearance at our camp and began pulling from a pine stump some cotton which I had placed there, thinking it might be the means of tracing some bird to its nest. After Mrs. Rivoli had helped herself to the dainty morsel she flew in a direct line to the bottom of the canon, about seventy-five yards below our camp, and was soon back for more cotton. I felt certain then of a nest and shortly after my brother located it in a red fir tree.

The nest was about one-third finished so I left it for about ten days and on the 25th of July, with the assistance of Mr. F. C. Willard, his brother Nelson and a Mr. Stuart, I secured a beautiful nest and two slightly incubated eggs. The nest was about fifty feet above the ground and about twenty feet out from the trunk of the tree, saddled on a large horizontal limb near its extremity. I had thought of removing the eggs from the nest by use of a scoop, and of swinging the limb in by fastening a rope to it from above, but the only safe way to secure the nest was by using a rope as shown in the illustration.

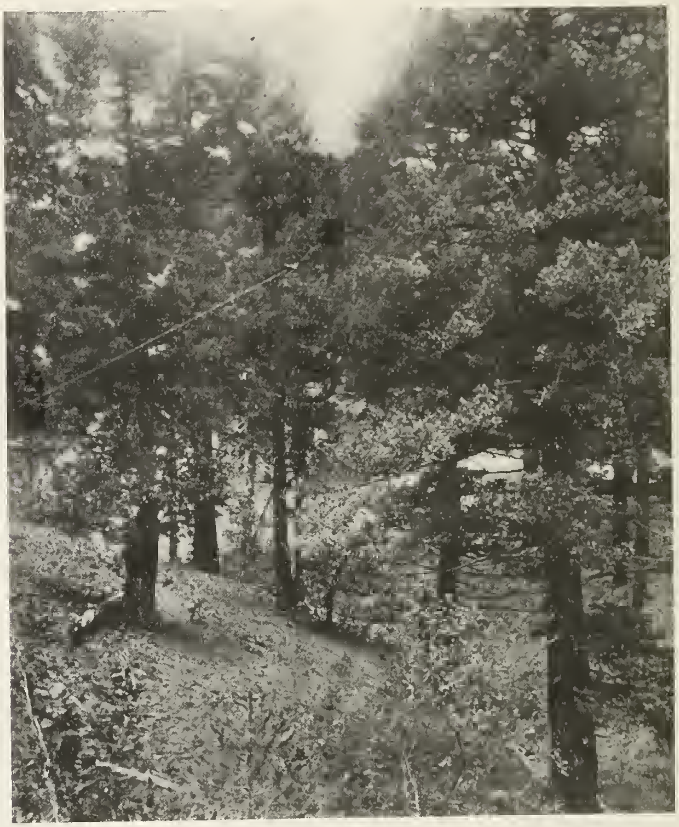

Plate II. Collecting a Nest of the Rivoli Hummingbird.

(Showing Mr. Howard's method of collecting nests situated on slender limbs)

One end of the rope was drawn up over a large limb at the trunk of the tree, diagonally above the nest. Enough rope was then drawn over to permit one end being pulled out from the ground, so that it passed a foot or two above the nest and a little to one side, at an angle of about 45°. The other end was then fastened to a limb at the base of the tree.

When everything was ready two of the boys played tug-of-war at the end of the rope, in order to keep it in position while I slid down to the nest. I was taking the eggs from the nest while the third party on the ground took the picture. After placing the eggs safely in my mouth I cut off a large portion of the limb with my hatchet and slid on down to the ground. From the time I started down the rope the whole performance took about one minute. This is only a fair example of how various nests were taken in this manner. The photograph of the nest was taken after the limb had been carried to the ground.

An Outing Into the Pyramid Peak Region of California

BY C. BARLOW

WITHOUT any pretention, for the present at least, of presenting a complete list of the birds of the Pyramid Peak region, the writer proposes to narrate some of the incidents of an interesting outing enjoyed by three Cooper Club members the past June. The reader of the "bird" magazines of today is of necessity impressed with the absence of narratives such as graced the pages of the old "bird" papers a decade or less ago. The tendency now is to specialize and narratives are few and far between. This change may have been for the better, but the writer believes that the perpetuation of the old style will at least partially restore the oozing enthusiasm of scores who--ornithologically speaking—have unconsciously found themselves "shelved" because of a lack of enthusiasm in the ornithological magazines of today. There seems to be no good reason why an article should lose its scientific value through being presented in a popular vein, and having made amends for any omissions or commissions, the writer proceeds to his subject with a lighter conscience.

June 4th found Mr. W. L. Atkinson and myself traversing the old Sierra stage road toward Fyffe, where our fellow club-member, Mr. L. E. Taylor, awaited our coming. Along the road comparatively little bird life is apparent, owing to the absence of underbrush, exposure to the hot sun and the volume of dust arising from the heavy travel. Yet along this road, at 3,500 feet elevation, among a considerable growth of cedars, the Audubon's Warblers (*D. auduboni*) have colonized to quite an extent, and although they occur all through the forest, they are noticeably common at this point. On June 5th I saw an Audubon's Warbler carrying food and shortly after found the nest twenty feet up on the drooping limb of a large pine. Upon climbing the tree the young, four in number, flew from the nest to the ground, and the parent birds practiced the well-known ruse of dragging themselves along the ground. Wishing to secure a complete family of the species, the young and parents were taken, and upon skinning the young birds, each was found to be afflicted with a small grub which had lodged between the skull and the skin, and which crawled out after the skin had been turned. The nest was lined with feathers, as is usual in this species.

At Fyffe, Hutton's Vireo (*Vireo huttoni*) was commonly heard and one specimen, a female, was taken. I collected one in 1899, but never observed the bird so commonly as this year. It would be interesting to compare a nest of this vireo from the coniferous belt with one from the oak regions of the valley, to see if the bird's *penchant* for moss is here gratified, but unfortunately no nests were met with. On the evening of the 5th Mr. Atkinson and I went out to inspect the timber, but few birds were about and fewer nests were discovered, Mr. Atkinson noting a nest of the Black-throated Gray Warbler (*D. nigrescens*), from which the bird flew as he brushed past the small cedar tree containing it. The full complement of four eggs was taken the following day, the nest being constructed of the usual grayish materials. In this region the Black-headed Grosbeak (*Zamelodia melanocephala*) and the Thick-billed Sparrow (*Passerella i. megarhyncha*) are by far the most prominent vocalists.

The old habit of the male Cassin's Vireo (*V. s. cassini*) singing from the vicinity of the nest did not fail and in response to the sharp, querulous song of the male from a black oak, I looked about and presently found the nest ten feet up on a drooping limb of the oak. The nest contained five eggs, well incu-

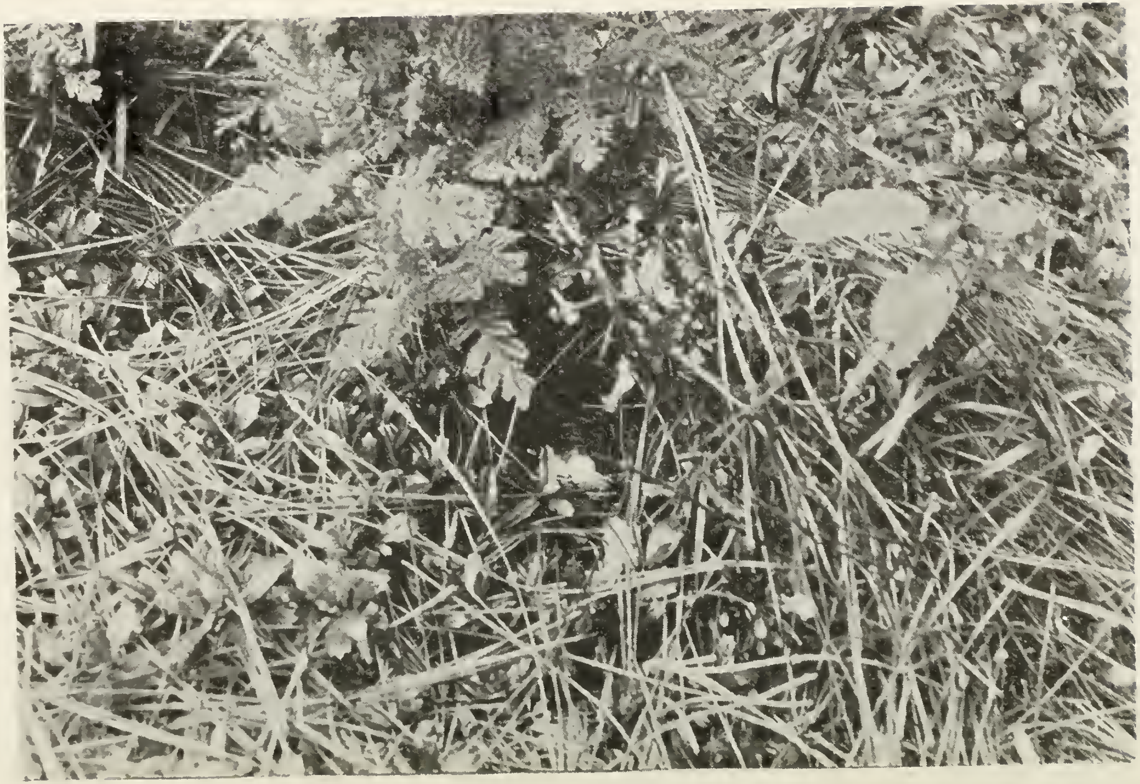

Photo by Barlow

PLATE I. NEST AND EGGS OF CALAVERAS WARBLER.

bated, and I am led to believe that this number of eggs is not unusual with *V. cassini*, having found two other nests, each holding five young. We shot a highly colored California Purple Finch (*Carpodacus p. californicus*), which was drinking at a brook, and thus ascertained that both this and the Cassin's Purple Finch (*C. cassini*) breed at Fyffe, 3,700 feet altitude. The Warbling Vireo (*V. gilvus*) was also common, being heard all through the woods.

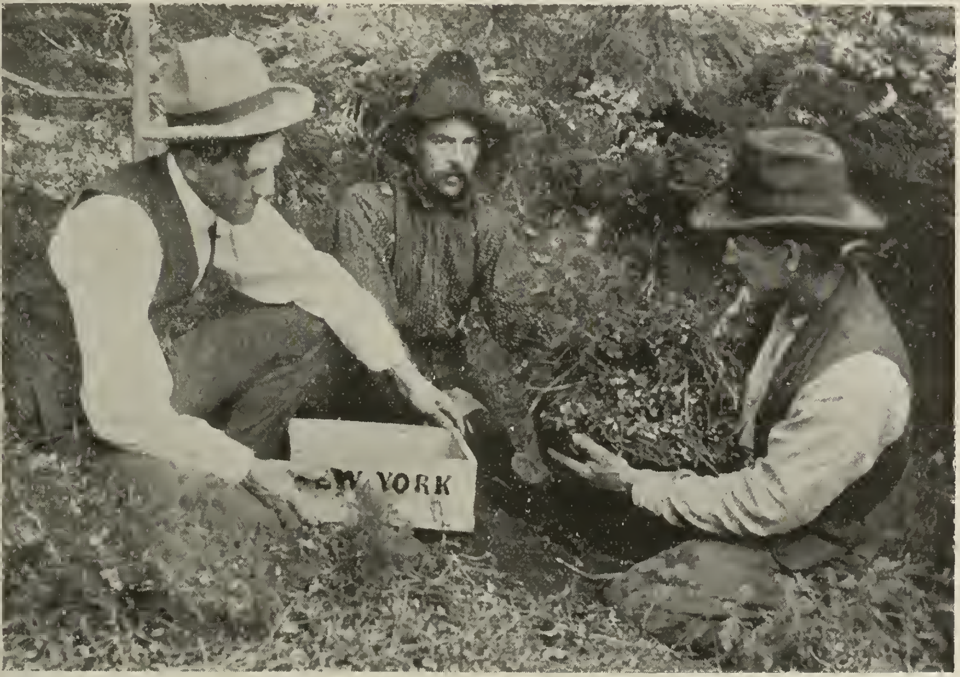

Photo by Barlow

PLATE II. COLLECTING THE CALAVERAS WARBLER'S NEST IN SITU
(Showing method by which such nests may be preserved)

Before leaving Fyffe behind us I must mention a beautiful nest and eggs of the Calaveras Warbler (*Helminthophila rubricapilla gutturalis*) which Mr. Taylor found on May 25, situated on the bank of a small irrigating ditch flowing out of the forest a few yards from the stage road. Mr. Taylor discovered the nest while cleaning out the ditch, the bird flushing from beneath a small weed. The nest contained five eggs, slightly incubated, and Mr. Taylor thoughtfully left the nest for us to inspect and I have thought it interesting perhaps to present two photographs of this interesting set. Plate I illustrates the nest and eggs *in situ* and shows the surroundings to advantage. Believing in the collecting of nests *in situ*, Mr. Taylor consented to wield the shovel, which he did to good advantage, plate II showing the nest and a square foot of earth as removed, while the writer expectantly held the box and Mr. Atkinson gave valuable advice. This picture serves to illustrate how, with little trouble, really charming nests may be preserved, with their surroundings, for the cabinet.

June 7 was spent in climbing the grade with a team and camp equipage in quest of a cooler clime as well as new birds. Mr. M. Dunkum was added to the party and our first night found us camped on the south fork of the American river, where rainbow trout may usually be relied upon to supplement the evening meal. The following day found us again toiling up the grade, finally deserting the dusty stage road for a rocky, almost abandoned, side road which should lead us away into the wilderness and to Pyramid Peak—our objective point. At 6,000 feet elevation several Sooty Grouse were heard "hooting," and one flushed from beside the road. At the top of the grade the rocky hillsides vanished as if by magic and a beautiful mountain meadow lay before us. Here a luxuriant growth of green grass, blossoming daisies and buttercups reminded one of early spring in the valley, and a distinctly cooler atmosphere was apparent. We headed eastward along the ridge toward Pyramid Peak, which, snow-capped and majestic, rose in the rich light of the setting sun, through an opening in the forest. Somewhere near the base of the peak we knew were several unoccupied dairy buildings, and accordingly we zigzagged our way through the spongy meadow and forest, following some barely visible tracks of the dairymen of the year before.

While jolting roughly over the uneven road a dull white patch in the woods came to view and a moment later the wagon wheels crunched in a coldly suggestive way over a bed of frozen snow! This sudden change from the valley was interesting, but in the shade of the tamaracks it was distinctly chilly as the shadows began to gather, and the members of the party silently buttoned their coats and hands were thrust well into pockets. We were tired and the cold forest wore a gloomy aspect. Still it was here that our first Audubon's Hermit Thrush (*Hylocichla aonalaschkæ auduboni*) was heard—its beautifully rich song floating up to us from a ravine near by—seemingly the farewell strains of the birds' evening chorus.

Presently a group of small log buildings came into view, situated at the higher end of the meadow, and the fording of a few small streams brought us to camp, where supper and sleep quickly closed the day's journal.

June 9th the birds had been up long before us, and we went out expectantly to study a fauna largely new to our experience. We found ourselves located at the head of a beautiful glacial meadow a mile or more in length, grown up to grass and traversed everywhere by little streams of snow-water, making it difficult to move about the meadow in places without getting into the water. As may be imagined, the ground was a spongy bog—a reservoir of moisture which probably feeds the lower streams through the summer. Fringing the meadow was a forest of tamarack and red fir, both trees being an abomination to the collector who attempts to climb them, owing to the droop of the limbs, caused by the heavy winter snows. Rocks and boulders are strewn everywhere among the trees.

I took an ante-breakfast stroll and learned my first lesson from a chipmunk. Birds were quite plentiful, though wild, and I was interested when the sharp "chit" of a junco sounded close by. Its persistence and volume caused me to look for the nest, but look as I might, I could not see the bird. Finally I espied a chipmunk sitting placidly on the low limbs of a red fir, and thereafter I treated all "chipping" notes with suspicion. A nest of the Blue-fronted Jay (*Cyanocitta s. frontalis*) containing four eggs, one-half incubated, was found ten feet up in a small tamarack, and the parent indulged in protests at long range. The nest contained a large proportion of mud—quite as much as a robin's—and was lined with fibers and pine needles.

Within fifteen feet of our camp fire stood a cabin, and in its side, about two feet above the ground, was a rough hole where a piece of board had broken off, and to this hole I saw a Mountain Chickadee (*Parus gambeli*) fly and chatter and then depart. After breakfast I investigated the hole and the little brooding bird looked up at me with perceptible fright. Finally she flew out revealing eight eggs and a rather remarkable nest. The nest was built on a joist and was made to fill the cavity, which was about ten inches long and eight inches wide, and was virtually a deep mat of hair, fur, etc., of these dimensions, with a deep depression toward one end of the mat for the eggs. The nest was largely made of cow hair picked up in the corrals, and the eggs were but slightly incubated. We visited the nest several times and each time the female would raise her head, and holding her neck apparently at a tension, would deliberately move her head from side to side, describing quite an arc. The male bird spent his time in a tamarack close by "chickadee-ing" industriously. The Mountain Chickadee was in evidence about the stubs of the tamaracks and doubtless nests commonly.

Pine Siskins (*Spinus pinus*) were flying about the corrals in a restless way, twittering very much as the goldfinches do. The clear, liquid, yet dolorous song of the White-crowned Sparrow (*Zonotrichia leucophrys*) sprang up from all over the meadow. In breeding season the birds must colonize to quite an extent in this meadow, for a species of dwarfed willow grows along all of the small streams, and was leafing out on June 10. The sparrows were evidently waiting for nest building, which was impracticable until the bushes should become in leaf. The breeding plumage and song of this *Zonotrichia* are both beautiful, and I could distinguish little difference in the breeding note and that heard in the valley in winter, unless the summer song of the bird is more intense. In the forenoon Mr. Atkinson and I went out for a stroll, interested as only ornithologists can be when an absolutely new field is spread before them. Mr. Atkinson shortly located a Blue-fronted Jay's nest in a red fir tree and inspection showed it to contain young.

While we were passing through a decided bog, we met our first California Pine Grosbeak (*Pinicola enucleator californica*) quietly feeding beside an old log. The bird was a male in brilliant plumage and doubtless had a nest in the neighborhood. We saw others of this species, which seems to be a fairly sociable bird, two males coming to a tamarack within a few feet of our camp, and one found his way into our collection. A persistent tapping called our attention to a red fir tree where a female Williamson's Sapsucker (*Sphyrapicus thyroideus*) was drilling her nesting hole. We were allowed to approach to the foot of the tree where we watched the bird at work for some time. All through the woods the note of the Olive-sided Flycatcher (*Contopus borealis*) resounded, although the birds were apparently not yet nesting at this altitude, 7,500 feet.

In the afternoon we all climbed a granite ridge to 8,500 feet altitude, where snow was plentiful, and about the edge of which Pine Siskins and Cassin's Purple Finches were feeding in flocks. Several finches were secured. At this elevation, on the southeastern exposure of the ridge, a colony of Clarke's Nutcrackers (*Nucifraga columbiana*) was located in a gulch lined with hemlocks, and several of the birds were seen flying laboriously in the cold, stiff wind which prevailed. A pair of Mountain Bluebirds (*Sialia arctica*) were also seen on the ridge.

The following day, June 10, we had set apart to make the ascent of Pyramid Peak, the summit of which appeared to be about two miles in an air line from our camp. So the party started with three cameras, a gun and other necessary paraphernalia, while Mr. Taylor carried a press for plants and secured many interesting botanical specimens. I may explain here that Pyramid Peak is the highest point in the range about Lake Tahoe, within the California line, and is credited with an altitude of 10,020 feet. The summit of the mountain is roughly the shape of a pyramid, its northern exposure being covered with snow throughout the year. We found our easiest means of ascent by making a detour of the meadow and striking a "hog-back" which ran in nearly a straight line to the summit, although we had to clamber at intervals over snow and boulders. Just as we were leaving camp I collected a specimen of Audubon's Warbler, which lodged in the thick foliage of a red fir, and in trying to dislodge it I saw the nest, fifteen feet up, on a drooping limb of the tree. But a few moments were lost in reaching it and I beheld a handsome set of four eggs of this warbler, heavily blotched about the large ends. The nest was lined with feathers—a characteristic of this bird's nest building.

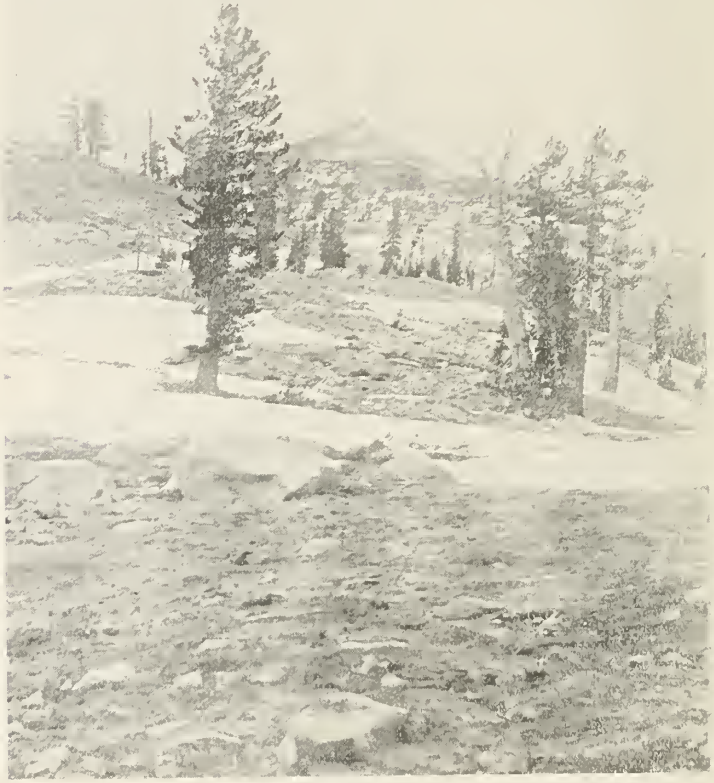

Photo by Barlow

PLATE III. CLIMBING PYRAMID PEAK.

View at 9000 feet altitude, with peak in distance. The effect of the altitude on the timber is here shown.

We continued on our climb, traveling slowly up the steep mountain side, which was made necessary by the light air. At 9,000 feet we made a photograph of the climb that lay before us and the result is presented in plate III. At this elevation the conifers were becoming noticeably dwarfed and there was an entire absence of underbrush, as shown in the plate. while bird life was rapidly diminishing. Mr. Atkinson noted a nest of the Red-shafted Flicker (*Colaptes cafer*) at 9,200 feet, in a pine stub, containing six eggs, and a nest of the Mountain Bluebird, also in a stub, containing a single egg. At 9,000 feet the red firs disappear and are replaced by hemlocks and by the stunted pine mentioned, the latter extending up to within perhaps a mile of the summit, growing smaller and smaller as the elevation increases. The last eighth of a mile is a conglomeration of great granite boulders and slabs of rock, with no perceptible vegetation, and this portion of the climb was made in short stages and with considerable exertion. The only feathered inhabitants of the summit as observed by us, were two pairs of the Gray-crowned Leucosticte or Rosy Finch (*Leucosticte tephrocotis*) which flew uneasily about the rocks, alighting for a moment on the pinnacle of some boulder and then taking wing again with a sharp, twittering note. One pair of birds was collected, both being well nourished, although the stomach of one was empty. The other stomach I submitted to the Department of Agriculture where it was kindly examined by Dr. S. D. Judd and Prof. F. E. L. Beal, who reported the analysis as follows: "The contents consisted of 30 per cent. animal and 70 per cent. vegetable matter. The animal matter included 12 leaf-hoppers (*Jassidæ*), 20 per cent., and one spider, 10 per cent. The vegetable matter consisted of 23 seeds of a conifer, possibly the dwarf pine which you state is found near the summit of Pyramid Peak."

It is here appropriate to mention the magnificent view which is to be obtained from the summit of these mountain peaks. At one sweep of the eye hundreds of square miles of mountain ridges come to view, and the snow-capped ridge of which Pyramid Peak is a part, could be followed southward until it melted with the horizon in the distance. From our position fourteen mountain lakes could be counted, and the magnitude of the scene is beyond description. After an hour on the summit our party descended and prepared to strike camp on the morrow. On our homeward journey a number of Western Evening Grosbeaks (*Coccothraustes v. montanus*) were seen drinking from the streams in the road at 5,000 feet elevation and they undoubtedly nest on the near-by ridges. Following is appended a list of the birds met with at our camp, 7,500 feet elevation, and above, and since but two days were spent in the locality the list is necessarily very incomplete. In *North American Fauna No. 16*, embracing the results of a biological survey of the Mt. Shasta region, Dr. Merriam has divided the life zones as follows: 5,500 to 7,000 feet, Canadian zone; 7,500 to 9,500 feet, Hudsonian zone; above 9,500 feet, Alpine zone, and reference to these may prove of some interest in considering the list here given.

PLUMED QUAIL (*Oreortyx p. plumiferus*). Commonly heard in the meadow at 7,500 feet, but very shy.

(SOOTY GROUSE) *Dendragapus obscurus fuliginosus*). Heard quite commonly at 6,000 feet, in the spruce belt, but apparently absent at higher altitudes, owing perhaps to lack of large timber.

WILLIAMSON'S SAPSUCKER (*Sphyrapicus thyroideus*). One, a female, observed drilling a nest-hole in a red fir tree, near camp.

RED-SHAFTED FLICKER (*Colaptes cafer*). A nest and six eggs found by Mr. Atkinson at 9,200 feet, in sparse timber growth on June 10.

OLIVE-SIDED FLYCATCHER (*Contopus borealis*). Commonly heard at camp on June 9, but apparently not yet breeding.

WESTERN WOOD PEWEE (*Contopus richardsonii*). Heard frequently in the meadow, where the birds were engaged in nest building.

BLUE-FRONTED JAY (*Cyanocitta s. frontalis*). Breeding in the red firs and tamaracks, both eggs and young being found on June 9.

CLARKE'S NUTCRACKER (*Nucifraga columbiana*). A colony were found on the south-eastern slope of Pyramid Peak, in a gulch lined with hemlock, where it is quite possible they breed early in the season.

CALIFORNIA PINE GROSBEAK (*Pinicola enucleator californica*). Several male birds in rich reddish plumage seen about camp and one secured. The only note so far as observed consisted of a harsh call note very similar to that of the Louisiana Tanager.

Cassin's Purple Finch (*Carpodacus cassini*). Common about camp and as high as 9,000 feet, where it was feeding along the edge of the snow. At this date the birds were gregarious at this altitude. Near camp several came to a tree near our cabin and were collected, among them being one male bird in the gray plumage.

Gray-crowned Leucosticte (*Leucosticte tephrocotis*). A pair secured at the summit of Pyramid Peak, on June 10.

Pine Siskin (*Spinus pinus.*) A flock was observed flying about the corral near camp, and others at 9,000 feet along the snow, all giving the twittering goldfinch notes. Gregarious at this date.

White-crowned Sparrow (*Zonotrichia leucophrys*). A common songster in the meadow and up as high as 8,000 feet. I found a nest built two feet from the ground in a thick bush, on June 11, containing one egg, the bird flushing as I brushed past the bush.

Western Chipping Sparrow (*Spilella s. arizonæ*). Heard several times at 7,500 feet.

Thurber's Junco (*Junco h. thurberi*). Seen and heard commonly at 7,500 feet, where it was not yet breeding on June 10. Two specimens were collected.

Louisiana Tanager (*Piranga ludoviciana*). Observed sparingly at 7,500 feet. Much commoner at lower altitudes.

——— Swallow (*Tachycineta* ———). Either the Violet-green or Tree Swallow was observed about camp by Mr. Atkinson.

Warbling Vireo (*Vireo gilvus*). Heard commonly about our camp. It seems strange that this valley bird should outrank the other vireos in this region, no other vireo song being heard.

Audubon's Warbler (*Dendroica auduboni*). Breeding at 7,500 feet. A nest and four eggs taken June 10.

Hermit Warbler (*Dendroica occidentalis*). One specimen seen on June 9, among the tamaracks.

Pygmy Nuthatch (*Sitta pygmæa*). A nuthatch, doubtless of this species, was several times heard near camp.

Mountain Chickadee (*Parus gambeli*). Common about the rotten stubs and a set of eight slightly incubated eggs taken June 10. Mr. Atkinson found a nest just completed in a stub, but containing no eggs.

Audubon's Hermit Thrush (*Hylochichla aonalaschkæ auduboni*). The song was several times heard toward evening, from the tamarack forest, on June 8.

Western Robin (*Merula m. propinqua*). A common resident in the meadow, nests with eggs being found June 9 and 10.

Mountain Bluebird (*Sialia arctica*). A nest was found in a stub by Mr. Atkinson at 9,000 feet, containing one egg. The nest was composed of grasses.

* * *

The American Titlark in Spring Plumage in Los Angeles Co., Cal.

About the middle of April, 1899, while crossing a swampy bit of pasture, I flushed several Titlarks (*Anthus pensilvanicus*) and as I wanted some specimens, I shot two. On picking them up I was very much surprised and puzzled at the plumage one of them was in; all that I had shot before had been during the winter months, and they were very unlike the bird I now held in my hand, so much so that I could hardly believe that they were of the same species. This bird had the back of a decided ashy tinge, and the under parts, which were of a vinaceous color, were altogether unspotted, except for a few faint, almost invisible specks on the throat. The other bird was not so ashy on the back, and the lower parts were rather heavily spotted, though not so much so as the winter specimens. On dissection the unspotted bird proved to be a male, the other a female.

I looked through all the descriptions

of the American Titlark that I could find, and nowhere could I find a description of the male bird as having the breast unspotted until finally in a volume of the Catalogue of Birds of the British Museum (Vol. X, page 597) I found a very accurate account of this plumage, with the following interesting note: "The adult bird in full grey-and-"vinous plumage, is seldom seen in col-"lections; it is figured by Swainson in the "'Fauna Boreali-Americana,' but the only "specimen I have seen was one in the "Sclater collection from Western Mex-"ico, probably shot in full plumage just "before its departure for its breeding "haunts. All the other specimens col-"lected in northern latitudes are more "brown on the upper surface and show "more or less spotting on the breast, "which is a dull fawn-buff. It may be "surmised therefore that only very old "males gain the uniform vinous-breasted "dress, and the females in all probabil-"ity are always spotted on the breast." I hunted carefully for Titlarks for some time after I shot these birds, but only succeeded in getting one other, a female, before they had all left. I saw one as late as May 1st, but did not secure it.

The first week in April, 1900, I commenced looking for them again, but the majority had left already, and I could only find a few scattered birds, until, on April 10, when I ran across several flocks in a field I had not yet examined. The birds stuck to this one field pretty closely, and although there were large stretches of country on all sides apparently exactly similar, they were found in this one field and nowhere else. I saw them there several times, the last time being April 20, when they were still quite abundant but extremely shy and difficult to approach. On April 30th I visited the place again and searched carefully but the Titlarks were all gone, I did not see a single one. In all I secured eighteen birds, and three the year before making twenty-one all together. Of these nine were males and twelve females. Of the nine males only two were in the unspotted grey-and vinous plumage; all the others are more or less spotted underneath, although some are spotted very lightly; all the males are much more greyish above than the females.

The twelve females are all rather heavily spotted underneath, and lack the rich vinous tints of the males. This interesting plumage of the Titlark may not be as new to many members of the Cooper Club as it is to myself, but as I believe that the latest date on which this bird has been taken in Los Angeles County heretofore was April 3, and as it is improbable that any specimens should have finished their spring moult at that time, I believed that an account of this plumage might not prove uninteresting. It would seem besides that the old males in the most perfect plumage are quite rare and difficult to secure, at least in this localtiy.

H. S. SWARTH.

Los Angeles, Cal.

* * *

The Evening Grosbeak as a Pet.

PERHAPS almost every wild bird has been made a pet of at some time or other, but the Western Evening Grosbeak is least often seen in captivity. Six years ago in August our bird was found here at Webber lake, 6,800 feet altitude, a tiny, featherless creature that had evidently gotten tipped out of the nest before the time had come for him to leave it. We did not know what the bird was, but put him in a cage and fed him moistened crackers and boiled eggs, liberally sprinkled with red pepper. He seemed to thrive on this diet and became fully grown before he would eat anything else. Finally he became fond of canary seed and now lives upon it. He eats also a great deal of fruit, preferring that grown in warm climates, such as oranges, and bananas. Green peppers are his special delight and he eats a whole one in a day, devouring it eagerly, even to the seed and core.

When he is caged he likes to have people about him and will be quite happy for hours, whistling or singing to any one who will answer him. When he is left alone he calls out vigorously and tries hard to follow; and when allowed he follows us about the house or goes about on our shoulders. One winter he made his home in a small evergreen tree fastened in one corner of a room and was allowed to fly about at will. He would perch on our shoulders and pull at our hair, and if we objected we got a sharp tweak on the ear. Our two setters had been taught to be very careful of him, and he would alight on their backs or hop about them pecking at their feet and noses. When out in a room he is very mischievous and will pounce upon a pin-cushion full of pins and scatter them in all directions. Small articles on a shelf always attract him and he will pull and tug until they are on the edge and then lean over and watch them fall.

His voice is very harsh and discordant and his efforts to imitate the musical calls of other birds are very ludicrous. On several occasions, he has escaped and as soon as he reaches a tree the wild birds collect and pursue him. I have never noticed that they fought him but he seems to fear them. After he has been out a few hours he is very happy to be back in his cage. One morning he got out and after a long search his calls led us to some trees a distance from home. Our neighbors had found out that "Johnnie" was lost and they, especially the children, all followed us about looking for him. When we found him he answered our calls and whistled and hopped down to the lower branches, but could not be induced to come to us. After waiting an hour or two, our friends' patience gave out and they went away one by one. When we were alone my sister sat down and poured some seed into her lap. At once he flew down and began to eat eagerly, chattering noisily the while. Then he allowed himself to be put into the cage.

Our bird does not seem to be at all affected by the severity of the mountain winters, although the wild grosbeaks always migrate. They remain in the mountains only during the summer, while they rear their young. Their nests are built very high and are hard to find, for when the old birds leave the ground they rise straight into the air to a great height before turning to their nest. Our bird's brilliant plumage makes him a coveted pet in this latitude, and his unusual bird-intelligence has won him a high place in our household.

MISS ESTELLE C. BURTON.

Truckee, Cal.

* * * *

Notes on Some Birds of Cape Nome, Alaska

BY JOSEPH GRINNELL.

THE ten weeks from July 20 until October 2, 1899, I spent in the vicinity of Cape Nome, Alaska, now notorious as the latest mecca of the gold-hunter. The previous year I had passed further north, in the Kotzebue sound region, during which time I could collect and study birds at pleasure. But when we reached Nome all our attention was centered on mining and prospecting. I therefore had no time for outside matters and not a single skin was saved, though I couldn't help seeing what birds happened within eye shot range. But, as all the species here recorded had been familiar to me during the previous year, I am confident of their proper identity. Birds in general were far less numerous than on Kotzebue Sound, the sea coast in the vicinity of Cape Nome being much more barren of vegetation.

Our first base of operations was on some beach claims about seven miles west of Nome City. Here we were at work from July 20 until August 25. And here I made the following bird-notes, most of which are contained in letters written at the time to Mr. F. S. Daggett of Pasadena.

The beach at this point is about fifty yards wide and bordered by a low bank or bluff, from the top of which extends the level or slightly rolling tundra back to the hills some five miles inland. This tundra is barren of any vegetation except the spongy carpet of sodden moss, with here and there in low places patches of grass, margining lakes or swales. On the sides of the short ravines, which cut through the bluff at intervals, are occasional patches of dwarf willows a foot or less in height. August 6—Have seen several small companies of Emperor Geese (*Philacte canagica*) flying along just outside the surf, always late in the evening. Bands of Pacific Kittiwakes (*Rissa tridactyla pollicaris*) often pass up or down the beach on the lookout for tom-cod; and an occasional Point Barrow Gull (*Larus barrovianus*) comes sailing along, but none of the gulls loiter along here anywhere. A pair of Arctic Terns (*Sterna paradisæa*) feeding their full-grown young, afford almost the only bird notes I have heard for days. The young have a pleading yet harshly strung succession of calls, and hover along the beach, keeping in close company with their parents, ever ready for the fish caught in the surf by the latter. The precision with which a tern can drop onto a tiny fish, or crustacean, in the boiling surf is remarkable. And yet they seem so light on the wing, and rise from the water with so little apparent exertion. Long-tailed Jaegers (*Stercorarius longicaudus*) are common coursing back and forth over the tundra, or poising against the wind, sparrow-hawk fashion. Their long, pointed, streamer-like central tail-feathers distinguish them at a glance from the other two species, neither of which, however, have I seen here. They feed on meadow-mice, and caterpillars mostly, but their piratical habit of forcing gulls to disgorge is of frequent notice. As there are no mud-flats or lagoons here, waders are very scarce. I saw a Pacific Godwit (*Limosa lapponica baueri*) flying overhead back toward the tundra. Also scattering companies of curlew (probably *Numenius borealis*) have appeared several times flying along the bluff. Several Golden Plover (*Charadrius dominicus*), which I have no doubt are rearing young, are to be found at any time on the back part of the claims. Their melodious, warbling call reminds me of a robin's song. These plover show decided preference, where ever I have found them, for the dryest upland tundras. One day last week I was at work on a prospect hole back of the bluff, when three Turnstones (*Arenaria interpres*) alighted among the mossy hummocks within a few yards of me. They were very tame, and remained in the vicinity for an hour or more, feeding on insects and their larvæ.

Black-throated Loons (*Gavia arctica*) are numerous, and are constantly to be seen and heard overhead as they fly back and forth from the lakes on the tundra to their feeding-grounds out to sea. I have found quite a number of dead Crested Auklets (*Simorhynchus cristatellus*) washed up on the beach lately. Large numbers of the birds were seen out in Bering Sea, south of Bering Straits, when we were sailing down from Kotzebue Sound. Land birds here are very few. I flushed one Snowy Owl (*Nyctea nyctea*) back of the bluff the other day; and the boys say they saw a hawk of some kind—judging from their description a gyrfalcon. I saw two juvenile Alaskan Longspurs (*Calcarius lapponicus alascensis*) yesterday, feeding about a ravine in the bluff, and also one Siberian Yellow Wagtail (*Budytes flavus leucostriatus*). A pair of immature Redpolls (*Acanthis linaria*) have been noted several times along the bluff near camp. One rather unexpected bird was seen, a White-winged Crossbill (*Loxia leucoptera*) on July 26, flying east along the bluff close past me. Its note and bearing, so familiar after my experience with the species last spring, were unmistakable. The nearest timber must be 75 miles in the interior; but I have noted, in the case of several interior species, a straggling from the timbered regions in late summer toward the more barren coast region.

These were all the species of birds observed during more than a month at this point. On August 26th we broke camp here and proceeded to the mouth of Nome River, which flows into Bering Sea three miles east of Nome City. There we loaded skiffs with provisions, and for the next two days towed and dragged them up the swift shallow stream some twelve miles to the mouth of Buster Creek. Toward the upper part of the river's course, the willows and alders become larger, until there are tracts of them bordering the stream as much as ten feet in height. Here, on August 27, I noted the following species: Yellow Warbler (*Dendroica æstiva*), Black-poll Warbler (*Dendroica striata*), Wilson's Warbler (*Wilsonia pusilla*), Western Tree Sparrow (*Spizella monticola ochracea*), Fox Sparrow (*Passerella iliaca*), Golden-crowned Sparrow (*Zonotrichia coronata*), Gambel's Sparrow [*Zonotrichia leucophrys gambelii*] Gray-cheeked Thrush (*Hylocichla aliciæ*), Hoary Redpoll (*Acanthis hornemannii exilipis*), and Snowy Owl.

Small land-birds were most numerously noted on the 27th and 28th of August. The fall migrations were then evidently in progress. The willow thickets were green and inviting, and the weather was as yet moderate. Most of the birds were heard singing, especially the warblers, just as in spring. Water-birds were also seen along the river, though in small numbers. A young Sabine's Gull (*Xema sabinii*) was met with on a sand-bar, and as we slowly towed our boats along, it kept flying from bar to bar ahead of us until we reached Buster Creek. A few large gulls were feeding on dead salmon along the river. The Red-throated Loon (*Gavia lumme*), as well as the Black-throated, was quite common, seen mostly flying overhead along the valley. There were also a few Pintails (*Dafila acuta*) and cranes.

The month of September we spent in working placer claims on Buster Creek. This is a small stream flowing from a canon about three miles back among the hills. It is lined with willow thickets, and the hillsides are clothed to some extent with the same vegetation. On September 3 there was a heavy frost and some ice. Small birds were soon scarce. Siberian Yellow Wagtails were seen on September 8; the last Golden-crowned and Western Tree Sparrows, and Alaskan Longspurs on the 10th; the last Gray-cheeked Thrushes on the 8th.

Willow Ptarmigan (*Lagopus lagopus*) were very numerous, and I secured many a potpie-full in an hour's hunt after supper. Ptarmigan were at first quite tame, and a flock could be followed around the hillsides until several were shot. They finally got the habit of scattering in all directions as soon as flushed, and then only one or two could be located and followed up. They were beautiful birds at this season in their parti-colored plumage of chestnut-brown and white.

A Gyrfalcon (*Falco rusticolus gyrfalco*) and a Snowy Owl were seen on the 17th of September. Also on this date and for the succeeding week immense flocks of Little Brown Cranes (*Grus canadensis*) were passing southward high overhead. I am pretty sure this is the species we see and hear so much of in migration in California, and not so often the Sandhill Crane. Pectoral Sandpipers (*Tringa maculata*) were noted in flocks on the tundras quite often in the early part of September, but had disappeared by this date. Golden Plover became very numerous toward the last of September, on the hillsides, feeding on blueberries. Several were shot close around the tents, and even after the snowfall of the 18th, which completely whitened the ground for several days, I could hear their clear, musical notes every few minutes as they flew past along the creek or up on the hills. Several were even seen on October 1 among the houses in Nome City, where they were being shot at whenever they alighted. The last two weeks of September became steadily colder and we were finally unable to carry on sluicing. So we returned to Nome City, and set sail on our schooner "Penelope," for California, on the 2d of October.

Thus, but 32 species were observed in the vicinity of Cape Nome during more than two months time. But of course this list would be largely increased if one should collect systematically, especially in the earlier part of the season.

⁂

The Nesting of Clarke's Nutcracker

[Read before Northern Division of the Cooper Ornithological Club Sept. 15, 1900.]

IN giving an account of the recent addition to the collection of Miss Jean Bell of the nest, eggs and parent of the commonly styled Clarke's Nutcracker (*Nucifraga columbiana*), I record an experience of difficulty and privation endured under the stimulus of eager desire and well-founded hope. I followed the assertion of a logger that he had seen several pairs of the omnivorous nutcrackers at a certain point in Salt Lake county. The place indicated was between Big Cottonwood and Neff's canons at an altitude of about 3,000 feet above Salt Lake City, and it was on the 25th day of April that I turned search into discovery and captured the female bird sitting on her nest and three eggs.

That the breeding was a second one was clear from the loss of feathers on the bird's breast. The eggs all perfectly fresh, the late date and the early season indicate this instance of nesting as particularly late for this bird. As to characteristic features, the eggs were 1.20x.92, 1.22x.92 and 1.22x.93, pale grayish-green, spotted chiefly on their larger ends, of properly ovate form, the markings being of different shades of brown, gray and lavender.

My pilot to my covey was the male bird, whom I saw making a bee-line rapidly to a point which I suspected to be a nest. I listened eagerly and heard a chirp, then the male bird flew away. I quietly climbed the tree and at a height of 40 feet and on a branch at a point eight feet from the trunk my prize was visible. Slowly crawling to it, I succeeded in capturing the female, then the eggs and lastly the nest. This nest was constructed between growing shoots and accommodated its irregular shape to them. It is, in outside diameter, 12x14 inches, with a depth of 4½ inches. The inside cavity has a diameter of 4½ inches and a depth of 3 inches, and the nest is composed of coarse dead twigs of pine and heavily lined with fiber from pine bark.

The pine in which the nest was built was near the summit of the mountain and on its south slope near the outer edge of the forest. On April 26 I made another trip to the locality, reaching the summit shortly after daylight. I stationed myself on a high point and watched the movements of the nutcrackers through my field glass, and after making several false points which caused considerable rough climbing, I finally located a nest containing four young birds which would have left the nest in two or three days. The nest was on a horizontal branch about fifty feet up and five feet from the trunk, saddled on a four-inch limb, surrounded by a heavy growth of small twigs. In both cases the nest could not be seen from the ground. The tree in which this nest was situated was on the same mountain side, and about 200 yards farther down on the south side of the timber.

W. H. PARKER.

Salt Lake City, Aug. 29, 1900.

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EDITORIAL NOTES.

Growth of the Cooper Club Retrospection is the means by which we sometimes measure our progress, and since the Cooper Ornithological Club has grown to be one of the leading factors in Californian ornithology and its advancement, it is interesting to note its growth, which has been unfailingly steady during the past few years. The organization of the club dates back to June, 1893, when four young ornithologists conceived the idea of forming a Club, which was done and, as with similar small organizations, its life was several times in the balance, but through the energy of its promotors it finally gained a secure foothold and began its growth, which later develments have shown was destined to result in the collecting into one associationof almost the entire ornithological strength of California.

Its first four years of existence was marked by a wavering growth, according to the efforts put forth by its members to interest others in the work, and January 1898 showed a total enrollment of 77 members. The books of the secretary since that date give forth the following interesting figures:

Membership January, 1898		77
New members added	7	
Members dropped	7	
Net gain for 1898	0	
Membership January 1899		77
New members added	18	
Members dropped	10	
Net gain for 1899	8	
Membership January 1900		85
Members added So. Div	8	
Members added No. Div	14	
Gain for 1900	22	
Total membership Sept. 1900		107

The increase for 1900, with the year but three-fourths gone, is something more than 20 per cent. of the total membership. When it is remembered that the ornithologists of California are more or less widely scattered, one may appreciate the wide field which is covered by the Cooper Club membership. A provision of the Club's constitution that a member must be a bona fide resident of the state at the time of election, has brought into the Club only those who are actively engaged in ornithological research.

Owing to its late receipt, we are obliged to omit an excellent photograph of the nest and eggs of Clarke's Nutcracker by Mr. W. H. Parker, which should have illustrated his paper in this issue. This will be published separately in an early issue of THE CONDOR.

It is now reasonably certain that by the next session of the California State Legislature the Cooper Ornithological Club, through its able member, Senator Edw. K. Taylor, of Alameda, will have prepared a sweeping bird protection bill for the consideration of California's law makers. Senator Taylor, himself an able attorney, is in a position to judge of the constitutionality of various protective laws and to model the proposed bill so that it may be without flaw when it is presented for consideration.

The forceful paper presented by Mr. Reynolds before the Southern Division on "Facts, and the Use We Make of Them" will prove a thrust to many workers, who have, perhaps, never doubted the value of the scientific work they are pursuing. There is undoubtedly much field work done each year which is practically valueless, insofar as it affects the sum total of our knowledge; specimens are amassed, with little or no attempt at investigation. Mr. Reynolds points out that in engaging in such work the student is not employing his time to the best advantage, and the ideal line of work suggested by Mr. Reynolds will bear careful reading.

The Biological Survey of the Department of Agriculture has issued Circulars Nos. 28 and 29 dealing with the protection and importation of birds as directed in the Lacey Act which was approved by Congress May 25 last. The terms of this act placed the preservation, distribution, introduction and restoration of game and other birds under the Department of Agriculture, and Secretary Wilson has, in turn, given the matter into the charge of the Biological Survey, and correspondence should be addressed to the Chief of the Survey. Parties contemplating the interstate shipment of wild birds or others should familiarize themselves with the text of this act, as in many cases such shipments, heretofore unprohibited, become violations of the law. Circulars and information are furnished by the Biological Survey upon application.

H. R. Taylor, associate editor of THE CONDOR, was one of the successful contestants in the recent short-story contest of the *Black Cat*, in which a large number of manuscripts were submitted.

Facts and the Use We Make of Them.

[Read before the Southern Division of the Cooper Ornithological Club.]

Mr. President and Gentlemen:

For a month past—since work slacked up a little and I have had time to think of anything but skinning birds and "spoiling them by setting them up on wires," as Joe Grinnell puts it—I have been haunted by a phantom of a duty unperformed. I have felt that, in return for the privilege of belonging to this genial Club, I ought to at least *try* to do something, as others of you have done, to brighten our meetings after the disposal of routine business.

Giving to this the name "duty" recalls what Spencer says (Prin. of Ethics, No. 46, pp. 127, et seq.) as to the disappearance of the feeling of obligation (duty) when the *moral* motive has reached its complete development. "The truly honest man, here and there to be found," he says—naively recognizing the fact that we are not all of us truly honest—"The truly honest man, when he discharges an equitable claim on him, is without thought of self-compulsion. He does the right thing with a simple feeling of satisfaction in doing it."

Now, while I do not wish to pose as more honest than my fellow men, I *do* wish you to believe that the fulfillment of this that I have, for convenience, called a duty, gives me "a simple feeling of satisfaction." To me it would be an unmixed pleasure were it not for the fear that it may not be a pleasure to you—that I may, in plain words, bore you and vex you.

At the risk, however, of "getting myself disliked" I feel impelled to offer you my views on the kind of work we should do, believing that we are not doing our best. I may be entirely wrong, and it is merely for the purpose of opening up the discussion of a question of paramount importance, that I do what a more politic, but not more sincere, friend might shirk. I am going to rub some of you the wrong way.

I cannot give you the kind of talk you are used to on the collecting of eggs, nor on the results of an expert ornithologist's observations of bird life. I have, of course, in my forty odd years of close association with our relatives of the woods, the prairies, the mountains and the lakes, noted habits and idiosyncrasies very interesting and very instructive; but I am sure all of you have seen or read of the same things, and I could not put the old material in a new dress that would lend it a fresh interest.

When I was a young man I had the good fortune to be, for some years, on terms of the closest intimacy with a very thorough student of nature, a man of really unusual brain, combining a keen, calm, cold, almost cruel reasoning power with the poetical temperament, the vivid imagination, lacking which the scientist is but a one-sided creature. It is this power of imagination—under perfect control, of course, and nourished by a generous diet of solid fact—that made possible the brilliant results of Darwin's patient and infinitely painstaking investigations.

I was very raw in those days—had the most absurdly crude ideas of Nature's methods. I was somewhat cocky, too—pertly pig-headed—and I did not then appreciate my friend's gentleness and patience in pointing out to me the absurdities I had naturally and inevitably imbibed from the teachings of parents, pastors and masters, and in setting my feet in the only path that can lead us to the truth. I owe it to this clear-headed gentle-natured philosopher that I have not frittered away my life in the aimless acquisition of a mass of disconnected facts, but have devoted my time to the arranging and classifying of the facts that came under my observation in such manner that they would help to a fuller and clearer conception of how things have come to be what they are—would help in tracing the path evolution has followed in this particular field we are studying—would assist in comparing this phase of evolution with the course of evolution in general; for it is only by generalization that we reach knowledge worth attaining. This thing of collecting facts, labeling them and poking them away into some out-of-the-way pigeonhole of our brain, is a waste of time and energy. Complete knowledge is what we should seek. "The most complete knowledge," says Spencer again, "is that knowledge of the highest degree of generality. We may know things more completely than they are known through simple experiences, mechanically accumulated in memory or heaped up in 'cyclopædias. We must make, first, generalizations of a simple or low order, and rise gradually to higher and more extended generalizations. The most highly generalized truths of science are generalized and consolidated by Philosophy. Knowledge of the lowest kind is ununified knowledge; Science is partially unified knowledge.; Philosophy is completely unified knowledge." It is the attainment of this completely unified knowledge we should strive for. Are we doing so in following our present course?

Now, while strenuously denying any desire to set up a hobby of my own as a better one to ride than yours, my object this evening is to lead you to think seriously on this question of the value of the facts collected by us, and the use we put them to. If I trample your crops it is only because I cannot walk around them—I must go straight to my object. I *must* attack—good naturedly I hope you will believe, and with a good motive—the assumed utility of some of the work we of the Cooper Ornithological Club are doing.

We all have at heart, I believe, the welfare of the Club—its growth in strength and usefulness. You will, no doubt, agree with me that to add to its strength we must do work that will interest outsiders—workers, and those who will furnish the sinews of war. To add to its usefulness our work must be of a kind that will give to the science of ornithology facts that will make possible a simpler classification—a classification based upon structure, function and habits. This is what Coues fought for with such uncompromising courage. He fought a good fight. I believe his work will live after him. We shall miss him sadly, but his trenchant words remain to us now that he is gone. He, more than others of our best men, insisted on the weight structure should have in governing classification.

Classifying is knowing, and a knowledge based on facts of a deeper significance than external characters, or on the name of the discoverer of a species, is what we should aim at. Facts of this deeper meaning, gathered by close and *systematic* observation and patiently classified, will be of immense value; first to the science our Club has for its *raison d'etre*, next, to kindred sciences and ultimately to the science of Ethics, the science that draws from *all* the sciences, material for those conclusions that are of supreme importance, in that they influence conduct—make it possible for us to formulate rules and determine means for the attainment of the ultimate end—HAPPINESS.

In collecting trayfuls of eggs, drawerfuls of skins, are we doing a work that will be useful in the way I have indicated? I think not. The egg collector—aside from what he learns of the nesting habits of birds (a knowledge, by the way, he might acquire without the robbery) adds nothing to the data that are of value in the proper placing of the bereaved birds in the scale of evolution; and, by the terms of the argument, it is such data we should expend our energies in collecting—data that have a bearing on that point, data with a meaning. To render the collection of such data of any avail, we must bring to bear much patience, much honest labor in getting at the meaning. Every adaptation of the organism to the evironment (such as the weak sternum and powerful pelvis of *Geococcyx*, the Roadrunner, or the prolongation of the tibia in *Colymbus*, the Loon—to take marked instances that are most familiar to all of us) every such adaptation is worth studying; worth tracing from its appearance as a bud to its fullest development, or from the beginning of its decadence to its more or less complete atrophy.

What can we learn from a comparison of size, shape and coloration of the eggs? There is, no doubt, *a relation* between the characters of the egg and the bird that laid it; but is that relation one that means anything to us? Does it help us in our search for the solution of the problem before us? The mere gathering of eggs and arranging them in trays to look pretty is not, it seems to me, an object worthy of us. It is too much like the collecting of postage stamps, souvenir spoons, or the flags of the nations.

There is another face to the matter of egg collecting that should not be passed over in silence. Doing as we are doing are we justified in our animadversions upon those who are guilty of promiscuous robbery? (*vide* remarks at a recent meeting upon the course pursued by schools—fostering in children the crime of robbing birds' nests). Is not the difference between our crime and theirs one of *degree* only, not of *kind?* Do the results in our case palliate the wrong?

The careful collection and arrangement of a series of skins—if the homologies and differences are conscientiously studied, and the results of such study put in shape to be of use—is a work that must bear valuable fruit. But I think a rigid system is necessary to justify the hope of any substantial addition to the sum of knowledge.

Division of labor is the prime requisite of this system, for no one man—unless he has unlimited time and money at his disposal—can make a thorough study of more than a species, a genus, possibly a family—at most, an order. If we were a compact organization, working under one roof, nothing interfering with our work along these lines, to one member might be assigned the study of the embryology, to another the anatomical structure, immature and adult, to a third the functions, habits, etc., of a wider range of objects than I have suggested. But these are *not* the conditions under which we are working and *must* work. The existing conditions make it possible to do thorough work only by each member taking up a definite group as his object of study, and making his investigation an exhaustive one—noting and recording the life history of the group selected—not *ab ovo*, but *ab embryone* to the end of the struggle for existence; never losing sight of the pathos of this bitter struggle—never doing aught to make the struggle more bitter; never causing our feathered cousins unnecessary pain; never deliberately taking a life where the benefit to science will not at least balance the evil. If we ignore this detail it is mere pharisaical humbug to prate of the sin of indiscriminate slaughter of birds for millinery purposes.

The exhaustive investigation I urge as a *sine qua non* to a substantial increase of our knowledge calls for more than merely collecting and classifying skins. Microscopic preparations of embryos, anatomical preparations of young and adult, and carefully made skeletons of both would have to be a part of each collector's study. Do not be afraid that this would be tedious work. Those of you who have never studied under such a system can have no conception of the vastly greater interest there is in the collection of facts that mean something—that call out our powers of analysis and synthesis—than in collecting postage stamps—I beg pardon, I mean eggs. Of microscopy I cannot speak from experience, though I know its extreme value. Obviously the minute modifications of tissue and organ—particularly in the embryo—cannot be studied without the aid of a powerful glass. Such a glass I have never been able to afford; neither have I had the special training required for the successful use of one. Possibly some member of the Club has a high power microscope and knows how to use it. If so, he is the one to take up this branch, doing as thorough work as may be in the group he selects as his special study, supplementing this, if he has the time and opportunity, by doing microscopical work for his brother investigators. Knowing little of the technique of microscopy I am not certain this plan could be successfully carried out, but I believe much material for examination may be preserved for some time, awaiting a chance for placing it under the glass.

As to the fascination of the study of anatomy—the bones, muscles, nerves, vessels, etc.—the organs and their functions—the modifications and adaptations so readily traced after one has learned enough of the general plan to know where to look and what to look for—the fascination of all this I *do* know. I assure you there can be no keener satisfaction to the student of of nature than this close analysis—unless, indeed, he be totally devoid of the analytical habit of mind; in which case he has no place in the army of workers in this field. He had better confine his energies to what will bring some measure of success in spite of loose thinking—if such a thing be possible. For the student of Nature's book, how humble soever may be his role, analysis is the only sure foundation for any superstructure he may attempt to build thereon.

Parenthetically I would say I hope you do not think I myself am so devoid of the analytical faculty as to overlook the fact that, in urging upon you a consideration of the rights of the birds, I am using a two-edged weapon, with which I must infallibly cut my own fingers. You can fairly come back at me, I know, with a "*tu quoque*." If so arraigned I can only say with the poor devil who steals a loaf of bread when starving: "My lords and gentlemen, I am guilty. I throw myself on your mercy. I look for your clemency because—I was hungry." That is my excuse, gentlemen, for the killing, and the encouragement in others of the killing, of my cousins. By this foul wrong I am guilty of, I get the means of being useful to others; those others being of greater value, I believe, in the furtherance of the apparent purpose of evolution—the attainment of a higher, a more complete life. This is my excuse. Can you offer one as good?

But this is a minor matter. *My* guilt or innocence affects not at all the argument. The avowed object of the C. O. C. is the increase of our knowledge of birds. My contention is that we should try to determine the best means of attaining this object, *and make use of such means.*

ROTH REYNOLDS.

Los Angeles, Cal.

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Book Reviews

BIRD HOMES. The Nests, Eggs and Breeding Habits of the Land Birds Breeding in the Eastern United States; With Hints on the Rearing and Photographing of Young Birds. By A. Radclyffe Dugmore. Illustrated with photographs from nature by the author. Pages xvi—183. Doubleday, Page & Co., New York. $2 net.

This volume is a combination work of the bird photographer and a key to the land birds of Eastern North America, the latter feature largely predominating. Typographically considered the volume is an artistic success, and the text is well put together, although one can but feel that the ever-interesting subject of bird photography and of "bird homes" too soon gives way to the more or less formal "key" to nests and eggs. While the latter branch of oology has been widely treated by authors for years past, essays on bird photography still possess unusual interest to bird students.

Mr. Dugmore prefaces his work with a strikingly sensible and forcible introduction, in which he appeals to the young bird student to dismiss the idea of a mere egg collection for the more profitable field of research which lies in the study of the birds' habits. He cites his experience with a Yellow-billed Cuckoo's nest containing two eggs which he allowed to hatch. In observing the young the author gained the interesting fact that the feathers do not break through the envelopes gradually as with most birds, but that they remain sheathed until the day before the young leave the nest. Then in twenty-four hours *every* envelope bursts and the bird is completely feathered! Such observations are what the student of today should seek, and the author is to be commended for pointing out this line of work to his readers.

Following the introduction are chapters on Birds' Nests and Eggs; Egg Collecting and its Object; Photographing Nests and Young Birds; Hints on the Rearing and Keeping of Birds, and finally the explanatory notes which refer to the "key." The chapter on the care of captive birds contains much of interest and value to lovers of pet birds.

After a list of the approximate dates at which the various birds may be found nesting, the "key" begins, covering 140 pages of the work. The birds have been divided into nine chapters, grouped according to the nature of the nesting site; e. g. Open Nests on the Ground, etc.; Nests in Holes in Trees, Stumps or Logs; Semi-pensile, Pensile or Hanging Nests, etc. A short description of the male and female of each species is given, followed by notes on the bird's habits, nest and eggs.

Fifty-two photographic plates by the author are distributed through the text, illustrating nests and eggs *in situ*, as well as a number of wild birds from life. Too much praise cannot be accorded some of Mr. Dugmore's results with the camera, the half-tones in general being of a high order. Sixteen full-page colored plates of nests and eggs are also embodied in the work, the result of the 3-color photographic process. It is to be regretted that these were permitted to enter the volume, for they suffer by comparison with the excellent half-tones and are possessed of the fault common to most such plates—inaccuaacy and too intense coloration.

However *Bird Homes* is a praiseworthy volume, well calculated to interest and set aright the ever-increasing army of new bird students, to whom the work is doubtless intended to primarily appeal.—C. B.

NOTES ON SOME BIRDS OF SANTA CLARA COUNTY, CALIFORNIA. By John Van Denburgh. (Proc. Amer. Philos. Soc. Vol. XXXVIII, pp 157-180).

This is a list prepared by Mr. Van Denburgh from fourteen years' observation in Santa Clara county, Cal., and 110 species and sub-species are recorded, some being merely mentioned as occurring, while others are followed by interesting and quite copious notes. Mr. Van Denburgh's observations are confined to Los Gatos and Palo Alto, points along the western range bordering the county, and the lack of notes from other diversified portions of the county necessarily affects the completeness of the list, which point, however, is already suggested by the author. The list forms an excellent basis for a thorough county list, to which other observers may add from time to time, and Mr. Van Denburgh deserves credit for recording the results of his observations.—C. B.

Official Minutes of Southern Division.

The regular meeting of the Division was held July 28 at the studio of Roth Reynolds, 341½ South Spring Street, Los Angeles. In the absence of Mr. McCormick, Mr. Grinnell was elected president pro tem. The names of Miss Mollie Bryan of Orange and Harry Putnam of Pasadena were proposed for active membership. The museum problem was set aside until the next meeting. Mr. Swarth exhibited six skins of the American Titlark and one skin of the Black-bellied Plover in full spring plumage. Mr. Wicks exhibited a photograph of the nest and eggs of the Dusky Poorwill, taken this season. The following papers were read: "Facts and the Use We Make of Them," by Roth Reynolds; "The American Titlark in Spring Plumage in Los Angeles Co., Cal.," by H. S. Swarth; "Nesting of the Rivoli Hummingbird," by O. W. Howard. After a lengthy discussion the meeting adjourned.

AUGUST.

The regular meeting was held Aug. 30, at the residence of Joseph Grinnell in Passadena. Twelve members were present, with Dr. Fordyce Grinnell as a visitor. Miss Mollie Bryan of Orange and Harry Putnam of Pasadena were elected to active membership. Roy Pendleton of Los Angeles, was proposed for membership. The question of establishing a public museum was referred to, and after considerable discussion was postponed indefinitely. Upon motion all funds remaining in the Division treasury were ordered remitted to the Northern Division for publication purposes. A paper prepared by Dr. F. M. Palmer on Nuttall's Poor-will, was read. After enjoyable refreshments the members inspected Mr. Grinnell's magnificent collection of birds. The Division then adjourned to meet in Los Angeles Sept. 27.

HOWARD ROBERTSON,
Sec'y. Southern Division.

* * *

The regular meeting of the Northern Division was postponed until September 15th, and the minutes will appear in the next issue of the CONDOR. The meeting will be held at the home of C. Barlow, in Santa Clara.

* * *

H. R. Painton of College Park, formerly principal of the Almaden School, has accepted the principalship of the public school at Pescadero, on the ocean shore—a region highly interesting to the ornithologist.

Mr. Chas. R. Keyes, one of the old "tried and true" ornithologists of Iowa, has located in California and is filling the chair of instructor in German in the University of California. Mr. Keyes' advent into Californian fields will be warmly welcomed by members of the Cooper Club and others.

THE CONDOR.

Bulletin of the Cooper Ornithological Club.
A Bi-Monthly Exponent of Californian Ornithology.

'ol. 2. No. 6. **Santa Clara, Cal., November-December, 1900.** $1.00 a Year.

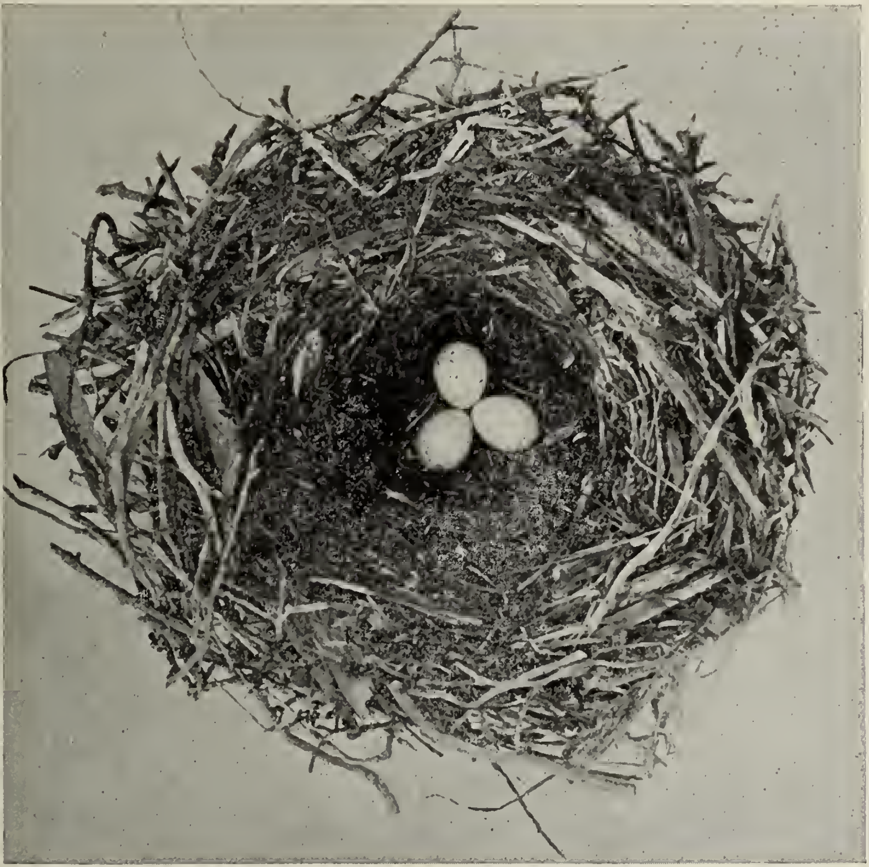


Photo by W. H. Parker.

Nest and Eggs of Clarke's Nutcracker.

(For description see The Condor, September-October 1900, Page 115).

Breeding of Agelaius tricolor in Madera Co., Cal.

BY JOS. MAILLIARD, SAN GERONIMO, CAL.

[Read before the Northern Division of the Cooper Orn. Club, Sept. 15, 1900.]

WHILE making a short stay at a ranch on the southern edge of Merced Co., Cal., during the latter part of April of this year, it was my good fortune to discover a very interesting breeding colony of *Agelaius tricolor*. My first day's prospecting on this ranch developed the fact that large quantities of blackbirds were enjoying a feast upon the newly-irrigated alfalfa fields near the ranch buildings, and that four species were present. These were, of course, *Xanthocephalus xanthocephalus*, *Agelaius g. californicus*, *Agelaius tricolor* and *Scolecophagus cyanocephalus*. The latter were breeding in the trees about the ranch buildings and the *Agelaius g. californicus* had their nests located in the sedge in low spots near the irrigating ditches, but the other two species were evidently not breeding in the immediate vicinity.

Being especially anxious to procure some females of *Agelaius tricolor* upon their actual breeding ground I made diligent inquiry among the vaqueros and ranch hands concerning this species, but no one knew or cared anything about birds. At last, however, one teamster remarked that he had seen quite a number of birds perching on some tules around an artesian well, some three miles away, every time he had passed there lately. In consequence the next morning, April 28, saw me started bright and early for the spot. The alfalfa fields extended the whole way along the irrigating ditch beside which my road lay. It was a cold, raw, foggy morning, not at all calculated to elevate one's spirits, and in consequence I had visions of failure as regarded the particular object in view.

But as far away as the bunch of tules could be discerned, probably nearly a mile, it was evident not only that the spot was the breeding ground of *Agelaius tricolor*, but also that the young were out of the shell, for a constant stream of the birds, growing thicker and thicker as the well was approached, could be seen flying along the line of the canal. This stream was composed of birds going toward the tules with their bills full of bugs and of equal numbers returning to the fields for fresh supplies.

From this line of flight individuals were constantly branching off into the alfalfa until the stream thinned out to nothing. Upon close approach the tules proved to be a small patch about thirty yards across, surrounded by a shallow pond of water and fenced in so that cattle could not destroy them. The pond was formed partly by the flow from an artesian well some distance off and partly by seepage from the irrigating canal, the bank of the latter forming a dam across the stream from the well.

The water was knee-deep and extremely cold on this particular morning. Upon the edge of the pond small flocks of *Tringa minutilla* and *T. occidentalis* just taking on the breeding plumage were quietly feeding, some *Himantopu* *mexicanus* and *Recurvirostra american* were wading in it, and a flock of thirty or forty *Charadrius squatarola* in varied plumage were in the field close by while a couple of *Totanus melanoleucu* greeted me with their peculiar cry The tules were from six to ten fee high and very thick. Upon near approach the birds gathered on the tip of the tules in vast numbers, while the air above was a mass of fluttering wings

The noise made by these birds when I was actually among them was almos deafening. In a moment or two there were hundreds fluttering around my head, each trying to make more nois than the next one, and yet every tul ip outside of a radius of ten or twelve eet from me was loaded with all the birds it could hold up, every extra bird hat settled down bending the tips over o that the rest slid off. From the outide of the patch not a nest could be een, but upon wedging my way in where the tules were shortest an amazing sight presented itself. Nest after nest appeared, becoming more and more numerous away from the outer edge, some only a few inches above the water, some three or four feet, and placed o thickly that it was impossible to orce one's way among them without disturbing or even upsetting more or less.

There were often three or four placed directly one above another, and frequently some of the lower ones had been smothered out and abandoned. Where the tules were highest and hickest it was impossible to walk through them and the only means of progression was that of walking upon hem and crushing them down for a support. In this very thick part most of the lower nests had been deserted. t seemed at first sight as if these lower iers must have been last year's nests, but their fresh appearance contradicted his supposition and led me to conclude that either the rapid growth of the ules or the building of so many nests above them had made them too dark and inaccessible. It would have taken a bird some time to work its way down to the bottom ones, which would have been a serious matter with a lot of hungry mouths to feed at short intervals.

Most of the occupied nests contained young, all apparently about the same age, that is from twenty-four to forty-eight hours old. A few, however, contained eggs, mostly in the last stages of ncubation. Many of those which had been deserted had in them from one to our decayed or partially dried, and frequently broken, eggs. Yet the greater part of the abandoned nests were empy. Those in the more exposed situaions seemed to have been robbed, probably by the *Buteo swainsoni*, which were numerous in the neighborhood and one pair of which had a nest in a tall poplar tree but a few yards away, and possibly by some of the many *Nycticorax n. nævius* which simply swarmed in the most attractive spots.

The nests were composed entirely of dried grasses, lined with finer parts of same and were more or less lightly woven around the stems of the supporting tules. Many were tilted so much to one side as to scarcely hold the young, small as these were. How the birds could possibly remain in them when a little larger seemed a hard problem to solve. The tules were white with the droppings of the birds, and many of the abandoned nests containing eggs had apparently been deserted on account of being too much exposed to this whitening process. That many of the empty ones had been robbed there is hardly room to doubt. Some young ones were found lying on the ground around the pond, as far away even as seventy-five yards from the tule patch. Also several of the *Buteo swainsoni* shot at this time had a cropful of young birds, though I could not actually identify them as belonging to this species on account of the advanced state of digestion.

The crop of one *Buteo swainsoni* contained two young just hatched and also the remains of two others with portions of the shell still sticking to them and which must have been just on the point of hatching. These were apparently the young of *A. tricolor*. But one nest containing fresh eggs was found, and only one other that could be saved, though I did not overhaul the whole rookery, partly because it was impossible to do so without destroying many nests by trampling or upsetting them, and partly because the mode of progression was exceedingly damaging to one's bare legs and feet, as the edges of the tules cut one's skin in numerous places.

In the line of flight to and from this

breeding ground the majority of birds seemed to be males, but this may have been an illusion caused by their greater conspicuousness. Or perhaps the females dropped out into the fields in closer proximity to their nests. The food which they carried seemed to consist mostly of large, smooth, green caterpillars from the alfalfa fields, and the benefit derived from the presence of such a large number of active insect destroyers must be enormous.

Within a mile of this breeding ground were several nests of *Buteo swainsoni*, some of which were placed in remarkable positions for a hawk, considering the fact that large cottonwood and poplar trees were numerous only a mile or so distant. One nest containing three partly incubated eggs was found in a willow that had been put in the ground to serve as a fence post for barbed wire and which had sprouted into a small bushy tree. This nest was so low that I reached into it from the ground, and yet it was only a few feet from a road through the fields that was used to some extent almost every day.

Another containing four eggs was discovered between a wagon road and the irrigating canal in a small willow that leaned over the latter, the nest being placed about sixteen feet above the water. Yet some of these birds built their nests out on the end of slim branches of very tall trees in such a way as to be safe from the depredations of even the small boy. I revisited this ranch six weeks later and repaired immediately to the tule patch to see what had been done meanwhile by the *A. tricolor*. The tules had doubled their height and were as thick as it was possible for them to grow. Only a few of the birds were in the vicinity and these were most probably some that had hatched out a second setting after the first had been destroyed. Large flocks were seen along the river six miles away, but in very inaccessible tule land among deep overflow channels full of water.

These flocks were mixed up with *A g. californicus* and some few *Xanthocephalus xanthocephalus*. The breeding place of this latter species remained undiscovered by me, and I could get no information concerning it. Upon this second visit the young *Buteo swainsoni* were found to have all left their nests and were flying about in all stages and varieties of plumage. Two young ones which were shot proved to be especially interesting in that one was in the dark phase and the other in the light, though evidently out of the same nest as they were shot, together with the old one, under such conditions as to make it certain that the group was of one family.

* * *

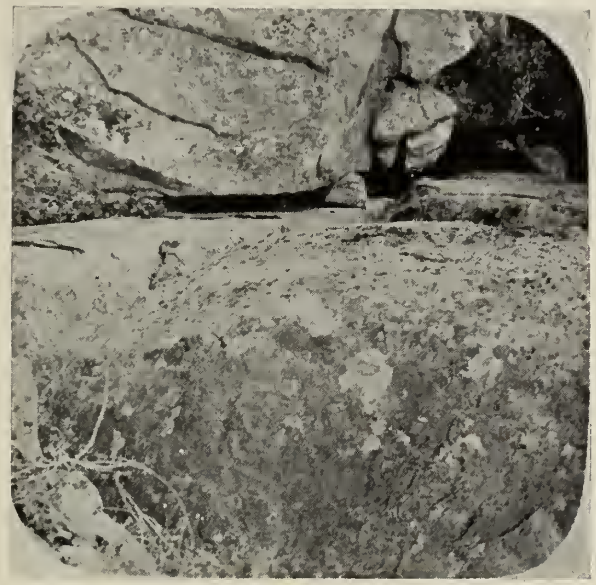
Nesting of the Condor on the Slope of the Cuyamacas, San Diego Co, Cal.

PHOTOGRAPHING A NEST.

MARCH, 1900 found Prof. W. V. Dyche and I at Mesa Grande making ready for an extended trip through the mountain regions of San Diego and Riverside counties in quest of the eggs of the larger species of birds inhabiting these regions. The professor had a pair of condors located in the Cuyamaca Mountains, in the Boulder Creek country, and had employed reliable parties to watch them.

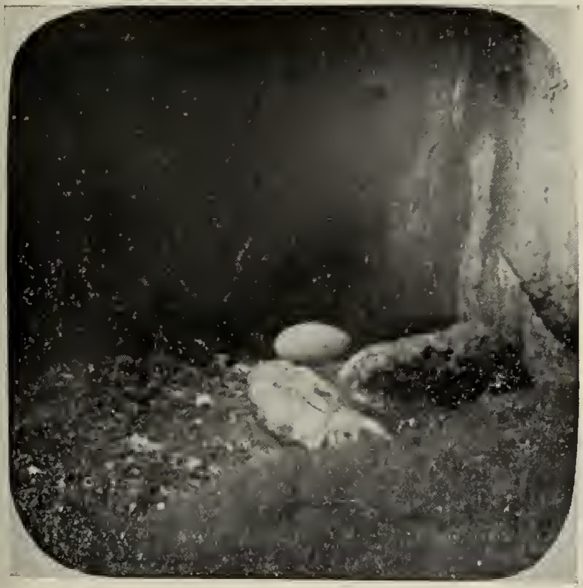
Just a few days before we were to start on our intended trip, Prof. Dyche received word from the boys that the birds had an egg in the nest, and to come immediately. We accordingly started the next day, taking with us a kodak, provisions and 150 feet of rope for scaling cliffs. After a ride of 2 miles by way of Julian and the Eagl Peak road we arrived at the rancho abou two o'clock in the afternoon. After a hasty lunch we saddled our horses and with rope and camera and accompanied by our guides, we traveled over fiv miles of the steepest, roughest and rockiest country in Southern California arriving at the foot of the cliff wher the nest was situated at about 3.30 p.m

We found no use for the ope as the face of the liff was on such an inline that we could climb up to the nest which we proceeded to do. Starting rom the bed of Boulder Creek which flows 300 feet below the nest, we made the ascent in a very short ime. The rocks about the nest were covered with a growth of poison oak and limbing plants, and on the ledge below the nest were feathers and splotches of excrement.



Nesting Cave of the Condor.

We saw no sign of the parent birds and in all probability they were frightened away by the boys' previous visit to the nest. The egg was on the bare, level soil in a small natural cave running about ten feet into the side of the cliff. The opening was about 18 inches wide and 26 inches high. There were quite a number of feathers and bones of small animals scattered about the interior of the cave.



Photos by P. L. Gedney

The Egg as Found in the Nest.

The day was cloudy and I had to make a time exposure in order to successfully photograph the egg, which I did, taking two views of the egg in the nest and two views of the exterior of the cave. Upon developing the negatives I found the results exactly alike in both cases, and the two photographs are herewith presented. I wished very much to secure one more view showing the cliffs and surrounding landscape, but the rain coming on at this time prevented the attempt. The egg was then securely packed, and we decended the cliff, mounted our horses and returned to the rancho where we were hospitably entertained for the night. The following day we returned to Mesa Grande where Prof. Dyche blew the egg and I brought it with me to San Francisco. It may now be seen in the collection of Mr. H. R. Taylor of Alameda.

P. L. Gedney.

San Francisco.

* * *

Notes on Some Unusual Sets of Eggs

The following are some unusual sets I have taken which may interest the readers of The Condor:

1. Russet-backed Thrush (*Hylocichla ustulata.*) June 11, 1895, *five* fresh eggs. Nest made almost entirely of redwood bark and placed among the out-growth of a redwood stump. Boulder Creek, Santa Cruz Co., Cal.

2. Cassin's Vireo (*Vireo solitarius cassini.*) June 6, 1896, *six* eggs, incubation advanced. Nest composed of leaves, grasses and stems, and placed in a low tree four feet up. Lexington, Santa Clara Co., Cal.

3. Long-tailed Chat (*Icteria virens longicauda*). May 27, 1900, *five* eggs, fresh. Nest made of leaves and grasses and lined with fine grass. Agnews, Santa Clara Co., Cal. Collected by Chas. A. Love.

4. California Partridge (*Lophortyx californicus*). May 23, 1900, two sets taken within 20 yards of each other, one containing 21 and the other 23 eggs, incubation begun. Nests in dry tules, made of same and but poorly concealed. San Francisco Co., Cal.

5. California Jay (*Aphelocoma californica.*) May 1, 1900, *two* eggs, incubation advanced. Nest made of twigs and moss and lined with hair and grasses.

Western Lark Sparrow (*Chondestes grammacus strigatus.*) June 21, 1898, *two* eggs, incubation begun. Nest of grasses and weeds in a small oak. Knight's Ferry, Cal.

Milton S. Ray.

San Francisco, Cal.

Another Bluejay Incident.

In connection with the notes that appeared in the March-April and May-June numbers of the current volume of The Condor concerning jays burying food I would like to mention a curious case of this sort that happened yesterday only a few yards from my creamery.

A Blue-fronted Jay, (*Cyanacilta s. frontalis*) was seen to fly to the ground from a small tree about twenty yards distant with a bay nut in his beak. After fussing around for a short time he chose a spot in the dry grass on a little hillside, either found a hole or made one, and stuck in the nut. After covering it over with a little loose earth he brought several lumps of dirt, one by one, from a radius of several feet, placed them on top of the nut and packed them down well. Satisfied with his work he flew back toward his tree. Before he even reached it, however, a California Jay (*Aphelocoma californica*), which had been watching the proceedings from a neighboring bush, flew down, resurrected the nut and flew off with it in triumph. By rights there should have been a fight, but there was no indication of dissatisfaction on the part of the original owner of the prize who allowed the thief to carry it off unmolested.

The question naturally arises as to why the California Jay should have stolen the nut. There were plenty of them still on the bay trees and lots on the ground under them, all to be had for the gathering. If he liked nut sprouts, worms or wormy flavors he could have waited and taken the chance of digging it up before the depositor thought of it again, or he could have gathered a lot more and buried them himself.

As both kinds of jays eat these nuts fresh, getting at the kernel by hammering the shell with their bills as they hold the nut against a horizontal limb until it splits open, it appears curious that they should bury it at all. It seems as if the Blue-fronted Jay had buried it either to keep it moist for a while or as a matter of provision for the future, though these nuts lie on the ground for a long time in a good state of preservation, or in fact until they are eaten up by squirrels and birds, or buried by natural processes. It also seems as if the California Jay had stolen the nut either out of pure mischief or actual spite.

Joseph Maillard.

San Geronimo, Cal., 10-21, '00.

* * *

Chas. K. Reed, the well known dealer of Worcester, Mass., has issued a very neat and compact hand-book on the collecting of birds and eggs and the mounting of birds, mammals and fishes. The volume is a handy one and contains much useful information which will be appreciated by collectors. The hand-book may be had on application.

C. BARLOW,
Santa Clara, Cal.

Dear Sir:

Enclosed find .... *for which mail* .... *cop*...... *of PACIFIC COAST AVIFAUNA: "Birds of the Kotzebue Sound Region, Alaska" at Seventy-five cents per copy to the following address:*

....

....

PUBLISHER OF —

The Condor,

BULLETIN OF THE

COOPER ORNITHOLOGICAL CLUB.

Edited by - - - CHESTER BARLOW.

Associated with { HENRY REED TAYLOR
HOWARD ROBERTSON

Santa Clara, Cal.................................

Your subscription to the CONDOR expires with the ....issue, and we trust you have found the volume in every way worthy of your support. The CONDOR has passed through the year with a full measure of success attending its publication, and the results lead its editors and the Club to feel that there is abundant room in the scientific publishing field for such a magazine, the sole objects of which are to promote Pacific Coast ornithology and present western bird news to the public.

No other ornithological journal has ever attempted such a restricted field, and the quantity as well as quality of papers presented in the past year, amply demonstrate the activity of the Club membership. The CONDOR presented during 1899 the first comprehensive and

Duck, Olive and other little-known warblers of Arizona, Olivaceous, Sulphur-bellied and Buff-breasted Flycatchers and others, beside numerous popular articles, lists, biographical sketches and portraits of Coast workers, communications and a wealth of general news notes.

Volume I contained 120 pages of text, although it was advertised to contain but 16 pages per issue. It has been mailed promptly on the 15th of each publishing month, a feature which we believe subscribers appreciate, and which will be continued.

A word as to the future! The Cooper Ornithological Club consists of between 80 and 90 active members, embracing all the prominent workers of California, all of whom write for the CONDOR, thus covering the state most completely. In addition, we expect to give space to other Pacific Coast states from time to time.

Most of the new discoveries in ornithology and oology come from the Pacific Coast and largely from California. With a membership extending from the Pacific Ocean on the west to the snow-clad Sierras on the east, almost all the new observations are recorded by the Club, and are given to the public through the CONDOR.

Future articles, written by live field-workers, will embrace collecting trips to California's islands, the Sierra Nevada Mts., Arizona and Alaska and if you would keep informed of the progress of events ornithological we invite your prompt renewal on the enclosed blank. The CONDOR offers no premiums but will, as in the past, give full value to its subscribers.

Respectfully soliciting your continued support,

Very truly yours,

THE EDITORS.

N. B. *Renewals* cannot be made through our subscription agent except at *full rates*, so kindly remit direct.

New Races of Birds from the Pacific Coast

BY JOSEPH GRINNELL.

BARLOW'S CHICKADEE.

Parus rufescens barlowi new subspecies.

Subs. Char. Similar to *P. rufescens neglectus*, but the sides pure smoked gray without a trace of rusty.

Type—♂ ad., No. 4425 Coll. J. G.; Stevens' Creek Canon, Santa Clara County, California; October 13, 1900; collected by Joseph Grinnell.

Habitat—Coast Range of California south from San Francisco Bay to Monterey County.

Parus rufescens neglectus was described originally* as follows: "Similar to typical *rufescens*, but sides grayish, only slightly tinged with rusty, instead of wholly bright chestnut-rufous." Mr. Joseph Mailliard has kindly supplied me with some fall specimens of typical *neglectus* from Marin County. These have the sides and flanks distinctly washed with cinnamon-rufous. Twenty-eight skins of *rufescens* in my collection from Oregon, Washington and Sitka, Alaska, agree in having the sides a pure bright brown, of a shade between hazel and chestnut. Therefore, in respect to this character *neglectus* is a transitional form between *barlowi* and *rufescens*. The habitat of *neglectus* is the coast region north of San Francisco Bay, at least up to Lake County. Typical *rufescens* occurs as far south as Mendecino County. The new subspecies is named for Mr. Chester Barlow, to whose energy is mainly due the recent spread of ornithological interest in California.

COAST JAY.

Cyanocitta stelleri carbonacea new subspecies.

Subsp. Char.—Intermediate in size and coloration between *C. stelleri* and *C. stelleri frontalis*. Dorsal surface sooty-black as in *stelleri*, but with blue on forehead nearly as extended as in *frontalis*. Tint of blue of posterior lower parts paler than in *stelleri*, and extending further forward into pectoral region, as in *frontalis*.

Type—♀ ad., No. 4419 Coll. J. G.; Stevens' Creek Canon, Santa Clara County, California; October 13, 1900; collected by Joseph Grinnell.

Habitat—Coast region of Oregon and California, from the Columbia River south to Monterey County.

Corvus stelleri was described‡ by Gmelin as inhabiting "in sinn Natka (=Latinized 'Nootka') Americae borealis." Therefore the type locality of *Cyanocitta stelleri* is Nootka Sound, which is near the southern end of Vancouver Island, B. C., and not Sitka, Alaska, as I have seen stated. *Cyanocitta stelleri litoralis* Maynard† was also based on specimens from Vancouver Island, and so is a pure synonym of *stelleri*. Moreover the alleged characters of *litoralis* (barring of wings and tail) are very variable, and the extremes occur in all the Pacific Coast races of *stelleri*. In the description of *Cyanocitta stelleri frontalis* Ridgway§ a type locality was not designated, but I have been informed by Mr. Ridgway that the description was based on skins from the Sierras near Carson. A comparison of specimens from the Sierras of Placer County with many from the mountains of Los Angeles and San Bernardino counties discloses no constant differences that I can see, and all are referable to *frontalis*. I have not been able to examine any jays from Vancouver Island, so I have used Sitka examples as typical of *stelleri*. Specimens from Seattle, Washington, are not quite so dark as Sitka birds, but yet are nearer *stelleri* than *carbonacea*. Many specimens from Salem and Beaverton, Oregon, are all strictly *carbonacea*. *C. stelleri annectens* from Idaho resembles *carbonacea* somewhat closely, but the white spot over the eye distinguishes both *C. s. annectens* and *C. s. macrolopha* of the Northern and Southern Rocky Mountain regions, respectively, from the parallel Pacific Coast races, *carbonacea* and *frontalis*, neither of which have any trace of such a marking. The amount of barring on the wings and tail of the three Pacific Coast races seems to be equally variable. Five out of twenty specimens of *stelleri* in my collection from Sitka are boldly barred with black; in six skins the barring is of a medium intensity, while in nine the barrings are quite indistinct. In the Sierra and Southern California specimens, six have boldly barred wings and tail; in five the markings are of medium extent; and in four they are indistinct. There appears to be an average sexual difference in this respect, more males being heavily barred than females. Out of 58 skins at hand, including *stelleri*, *carbonacea* and *frontalis*, 32 are males and 26 are females. Of the males 18, or 56 per cent. are heavily barred; 8, or 25 per cent. medium, and 6, or 19 per cent. indistinct. Of the 26 females, 11, or 42 per cent. are heavily barred; 6, or 23 per cent. are medium, and 9, or 35 per cent. are indistinct. There is also an average disparity in the dimensions of the females, especially as to the length of tail and crest. The accompanying table of measurements also shows the geographical variation in size of these jays. The measurements increase toward the north along with the darkening of the colors, while the length of the crest and amount of the blue on its front, conversely, increase toward the south.

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*Ridgway, Proc. U. S Nat. Mus. Vol. I, 1878; p. 485.

‡Systema Naturae, Tom. I, 1788; p. 370.

†Ornithologist and Oologist, Vol. XIV, No. 4; April, 1889; p. 59.

§American Journal of Sciences and Arts, 3rd Series, Vol. V, 1873; pp. 41-44.

	Wing	Tail	Tarsus	Crest	Culmem	Depth of Bill
	C. stelleri (Sitka, Alaska).					
Average of 12♂♂	5.88	5.84	1.81	2.45	1.20	.45
“ “ 8♀♀	5.71	5.62	1.73	2.37	1.14	.43
	C. s. carbonacea (Oregon and Coast of California).					
Average of 8♂♂	5.81	5.82	1.78	2.58	1.16	.45
“ “ 10♀♀	5.43	5.40	1.72	2.49	1.11	.42
	C. s. frontalis (Sierras of Central and Southern California).					
Average of 9♂♂	5.65	5.50	1.65	2.67	1.16	.39
“ “ 6♀♀	5.40	5.26	1.64	2.46	1.11	.37

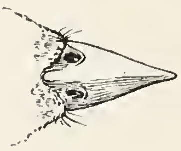
BLACK-HEADED GROSBEAK.

Zamelodia melanocephala microrhyncha new subspecies.

Subs. Char.—In both sexes, as compared with *Z. melanocephala* from southern Arizona, bill much smaller and differently proportioned; wings and tail somewhat shorter; ♂ with fore parts, rump, sides and crissum darker brown, almost the tawny or Ridgway's Nomenclature of Colors; white tipping of median wing coverts broader.

Type—♂ ad., No. 2987 Coll. J. G.; Buckhorn Canyon, Sierra San Gabriel, Los Angeles County, California; July, 18, 1897; collected by Joseph Grinnell.

Habitat—Pacific Coast region of the United States, including California, Oregon and Washington.



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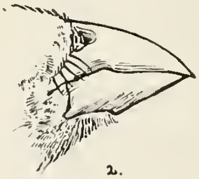

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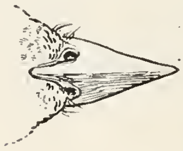

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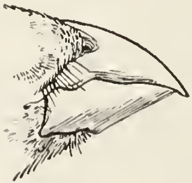

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Guiraca melanocephala, Swainson, was described from the "tablelands of Mexico," so I feel justified in restricting this name to the large-billed form from the southern Rocky Mountain region, thus leaving the smaller-billed Pacific Coast bird to be named. The English name, Black-headed Grosbeak, is so appropriate and of such long standing that it would be inconvenient to the bird people of California, where the species is probably best known to the public, to replace it by a new one. The accompanying life-size drawings have been made by Mr. W. K. Fisher, and they show the differences in the size and outlines of the bills of the two races better than a page of measurements. Figures 1 and 2 are from the type of *Z. m. microrhyncha*, while Figures 3 and 4 are from a selected specimen of *Z. melanocephala* (♂ ad., No. 2070, Coll. L. S, J. Univ.; Huachuca Mountains, Arizona, July 17, 1893; collected by W. W. Price and R. L. Wilbur).

* * * * *

Parrots in the United States

About the middle of June there came into the Chiricahua Mountains, from Sonora, Mexico, probably, a flight of nine or ten parrots, scolding and chattering and calling in a language which was neither English nor Spanish, but may have been some Indian tongue, or, indeed, that of the old Aztecs of Mexico themselves.

They appeared to come up the large canon, at the head of which I was encamped, to about midway of the mountains' height, where the oaks begin to give place to pine, and there they tarried—many of them I regret to say, for aye, for the timbermen in a pole-cutter's camp hard by, carried away by the novelty of the visitors, began slaughtering them, and captured one by a chance wounding from which it quickly recovered. And I, of course, must have a couple of specimens of this rare straggler (?). The remnant of that picturesque and interesting company, concluding perhaps, though wrongfully, that they were unwelcome to citizenship in this great republic, disappeared, returning, probably, to the land whence they came; and if they tell hard things of the inhabitants of Arizona to their fellows in that country, and to such of its human inhabitants as speak their language, they can scarcely be blamed.

The birds were very busily engaged with the pine cones, and investigation of their stomachs showed nothing but a plentiful quantity of very immature pinones wrested from their cavities in the hearts of the hard, green cones by their powerful beaks. The beaks, at their bases, as well as nearly the entire under parts of the birds, were more or less begummed with the resin of the cones.

The species is probably the Thick-billed Parrot (*Rhynchopsitta pachyrhyncha*) I learn upon reliable information that parrots have been seen in this range twice, at least, before—once two years ago. The two specimens I have are males, one, I presume a juvenile, as it lacks the beautiful red of the shoulders possessed by the other, which is larger and is less extensively colored as to other parts also.

The Chiricahua range is a large, rough range of mountains and touches the Mexican line at its southern end, and, moreover, has been less hunted than the other border ranges, so that it is just possible the parrot may yet be found breeding there and added to our fauna.

RICHARD D. LUSK.

Ft. Huachuca, Ariz.

* * *

The Eighteenth Congress of the American Ornithologists' Union will convene at Cambridge, Mass., on Nov. 13th, when the usual programme of papers will be presented.

Walter K. Fisher of Stanford University spent the three months from June to September in the high Sierras of California collecting mammals for the Biological Survey.

Wm. W. Price has opened a preparatory school for boys at Alta, Placer Co. Cal., a pleasant location on the Central Pacific Railroad in the Sierra Nevada Mts.

Nesting of the Dusky Poor-will

(Phalænoptilus nuttalli californicus)

I have been requested by one of our enthusiastic and experienced ornithologists, Mr. M. L. Wicks, to relate the experiences attending the taking of a set of Dusky Poor-will's eggs by myself in the season just closed. The find was made on June 24, 1900, and notwithstanding the fact of their being taken so late in the season, the eggs, two in number, showed only slight traces of incubation.

Coues' Key gives the color of these eggs as "white." A better and more accurate description would be a delicately-faint "creamy white," slightly intensified at one end, also showing at this end very faint shell markings of small brown spots. The eggs measure about 1.05x.80 inches in size and are elliptical in form.

The bird was flushed on the north side of a foothill near Eagle Rock Valley in this county, and flew across a gulch close by, alighting on the bank of its opposite side. I was able to approach to within about thirty feet of the point where she was sitting and studied her at my leisure while in this position. I then flushed her a second time and she flew back toward her nest, passing slightly in front of and about twenty feet above my head, giving me a perfect opportun-

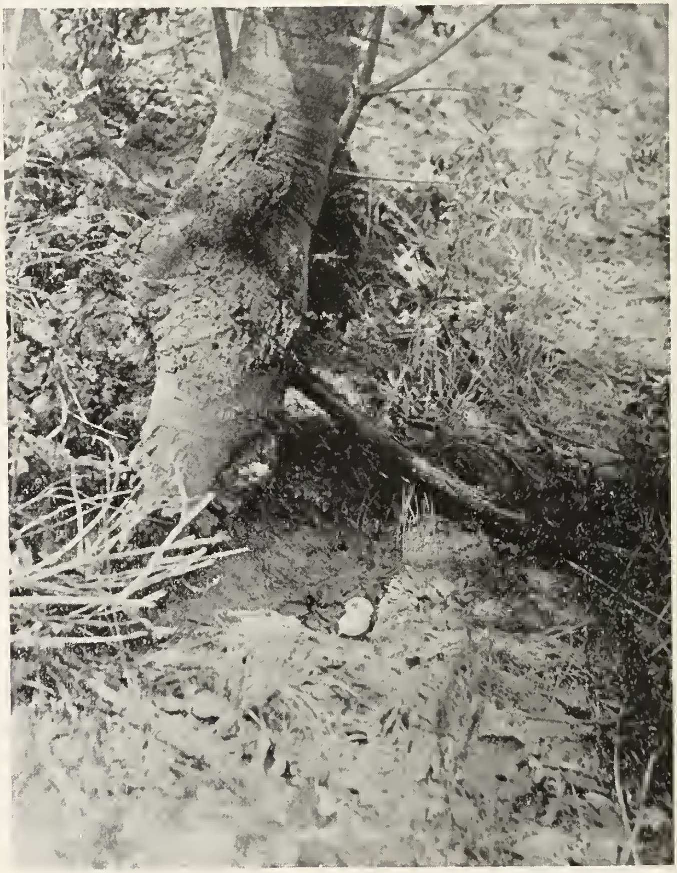

Photo by M. L. Wicks, Jr.

NEST AND EGGS OF THE DUSKY POOR-WILL.

ity of noting the appearance of the lower parts of her plumage. The general colors of the bird were more suggestive of a tortise-shell cat than anything else I can compare them with.

The point at which the bird flushed, and where the eggs were taken, was at the foot of a live oak tree on a side hill. The eggs were lying in a shallow depression in the earth about the size of a man's hand and no attempt whatever had been made to keep the eggs from direct contact with mother earth. The illustration from a photograph taken by Mr. Wicks renders further description unnecessary.

Dr. F. M. Palmer.

Los Angeles, Cal.

* * *

Some Additions to Van Denburgh's List of Land Birds of Santa Clara Co., Cal.

THE list prepared by Mr. Van Denburgh submits notes on 110 species and subspecies of land birds observed within the confines of the county, but his notes having been collected chiefly at two points on the western side of the valley (Los Gatos and Palo Alto), what may properly be termed the "floor" of the county has not been gone over, with the result that many of the marsh habitues and species frequenting the valley creek-bottoms have necessarily been overlooked. The author, however, has anticipated this in his list, and suggests that the list be completed by other observers.

I have accordingly thought it well to publish a list of additional land birds from my own notes, being allowed at the same time to incorporate a number of records from the field-notes of Mr. R. H. Beck, whose observations on the eastern side of the valley extend over a long period. Mr. Joseph Grinnell has also kindly permitted me to print his notes on several of the additional species, as observed by him at Palo Alto. In the following list the observer's name follows his notes, those so unaccompanied being my own:

Colinus virginianus. Bobwhite. This quail was introduced some years ago at San Felipe, in the southern end of the county, by Mr. Chas. Culp, and is reported to have done well.

Circus hudsonius. Marsh Hawk. Breeds on the Alviso marsh. One nest found containing broken eggs (Beck).

Buteo lineatus elegans. Red-bellied Hawk. A set of three eggs taken by H. R. Taylor at Sargents in April, 1896. Observed by R. H. Beck at San Felipe during February, 1900.

Archibuteo lagopus sancti-johannis. American Rough-legged Hawk. Irregular winter visitant at Berryessa. One specimen secured and mounted (Beck).

Archibuteo ferrugineus. Ferruginous Roughleg. Observed at Berryessa as an irregular winter visitant. One specimen shot. (Beck).

Haliæetus leucocephalus. Bald Eagle. One shot near Coyote. (Beck). I observed a single bird at Sargents, at the southern end of the county, on March 19, 1899, flying rapidly over the ranges of hills.

Falco mexicanus. Prairie Falcon. Seen occasionally in winter. (Beck). One shot at Berryessa by F. H. Holmes.

Falco peregrinus anatum. Duck Hawk. Seen nearly every winter on the Alviso marsh. Known to breed in the county. (Beck).

Falco columbarius. Pigeon Hawk. One seen at Berryessa Sept. 25, 1891. (Beck). A specimen shot in the fall at San Jose by F. H. Holmes of Berryessa and now in his collection.

Coccyzus americanus occidentalis. California Cuckoo. Heard at Palo Alto June 1-6. (Grinnell). Nests quite commonly near San Jose in creek-bottoms. (See Atkinson, Condor I, p. 95. Sept.-Oct., '99).

Dryobates villosus hyloscopus. Cabanis's Woodpecker. I shot one specimen, a male, at Sargents, Oct. 7, 1895, from a noisy flock of several frequenting a white-oak grove.

Aeronautes melanoleucus. White-throated Swift. Occasionally seen in migration. A flock observed at Milpitas Dec. 12, 1894. (Beck).

Selasphorus alleni. Allen's Hummingbird. Set n-2, with female, incubation slight, taken at Palo Alto May 25, 1900. (Grinnell). Found nesting at Wright's in the Santa Cruz Mountains. Occurs quite commonly in migrations. (Beck).

Contopus borealis. Olive-sided Flycatcher. A pair apparently took up their residence for the summer among the pines on the east side of the arboretum near Stanford University. I first saw them on May 10, 1900, and the loud, resonant note of the male bird was heard nearly every day from the same perch whenever I went past to the University. After the 30th of May I had no further opportunity of seeing them, but I have no doubt they were nesting. (Grinnell). Observed at Berryessa in September, 1900, doubtless migrating. (Beck).

Empidonax traill. Traill's Flycatcher. First seen at Palo Alto May 14. (Grinnell). Found breeding commonly along the creeks flowing into San Francisco Bay. The species prefers the thick young maple growths, where the nest is usually built in an upright crotch. The nesting season ranges from May through July at least, various dates being: July 2, '94, four eggs; August 8, '94. two eggs, May 22, '95, four eggs.

Cyanocitta stelleri carbonacea. Coast Jay. On Nov. 28, 1894, I shot a very dark female *Cyanocitta* at Los Gatos, which Mr. Robt. Ridgway referred to *C. stelleri.* It is probable that this specimen may more properly come within the intermediate race described by Mr. Grinnell as *Cyanocitta s. carbonacea* in the present issue of this magazine.

Agelaius phœniceus. Red-winged Blackbird. Mr. Beck informs me that a number of breeding specimens of *Agelaius* collected near Berryessa by Mr. F. H. Holmes and himself showed several birds referable to *phœniceus.*

Agelaius gubernator californicus. Bicolored Blackbird. Large numbers nesting in fields north of Palo Alto bordering the Bay. Specimens taken in May. (Grinnell). Abundant throughout the valley in grain-fields and marsh locations.

Agelaius tricolor. Tricolored Blackbird. On May 26, 1895, I discovered a small colony of *A. tricolor* inhabiting a tule patch near Sargents, at the lower end of the county. The nests were just completed and were all placed about five feet above the water. But one nest contained a single egg. The cries of the birds were harsh, much like those of *Xanthocephalus xanthocephalus.* On Jan. 1, 1896, Mr. Beck and I observed several Tricolored Blackbirds in an immense flock south of San Jose.

Coccothraustes v. montanus. Western Evening Grosbeak. The occurrence and the taking of three birds of this alpine species is recorded for Santa Clara County by Mr. Ernest Adams. (*Condor*, I, p. 31, Mch.-Apl., 1899).

Carpodacus cassini. Cassin's Purple Finch. I shot a male in bright plumage on Jan. 1, 1896, five miles south of San Jose, where it was found in company with a flock of junces in a eucalyptus tree.

Ammodramus sandwichensis alaudinus. Western Savanna Sparrow. An abundant winter resident in the seed-fields and on the unplowed ground toward the Bay, usually more or less gregarious.

Ammodramus savannarum perpallidus. Western Grasshopper Sparrow. From specimens taken at Berryessa in summer, it evidently breeds. (Beck).

Ammodramus caudacutus nelsoni. Nelson's Sharp-tailed Sparrow. The only two specimens recorded from the county and probably from California, are two males taken at Milpitas, on the marsh, May 6, 1891, and Jan. 31, 1896, by Mr. R. H. Beck. From the first of these specimens Mr. Ridgway described a race to be known as *Ammodramus c.*

becki, but these specimens have since been found to be synonymous with *Ammodramus c. nelsoni* (see Dwight, *Auk*, Oct. 1896, p. 273).

Aimophila ruficeps. RUFOUS-CROWNED SPARROW. A common resident in sage-brush districts on the eastern side of the valley, where it doubtless breeds.

Melospiza melodia heermanni. HEERMANN'S SONG SPARROW. Along creeks, inland. (Grinnell). I have a male, collected on the Alviso marsh Nov. 30, 1899, which Mr. R. Ridgway refers to this form.

Melospiza melodia guttata. RUSTY SONG SPARROW. Mr. Beck has two specimens taken in the Berryessa foot-hills Jan. 24, 1890, and Nov. 3, 1896, respectively.

Melospiza melodia pusillula. SALT MARSH SONG SPARROW. On salt marsh. (Grinnell). I have two specimens taken on the Alviso marsh Nov. 30, 1889. Mr. McGregor mentions its occurrence in the county. (*Condor*, I, p. 87).

Phainopepla nitens. PHAINOPEPLA. One observed in the orchard at Berryessa during the first week of November, 1899. (Beck). One seen Oct. 28, 1898, in the foot-hills east of San Jose. (Adams).

Vireo solitarius cassini. CASSIN'S VIREO. Observed at Alum Rock, near San Jose. (Beck). This vireo, I am sure, will be found a common summer resident along foot-hill streams, bordered by sycamores. I first met it on May 19, 1895, on the Guadalupe Creek, near Almaden, when a male was shot. On the same day I also observed a nest containing five young, built on a drooping sycamore limb. Mr. F. A Schneider has since found this vireo breeding along the same stream.

Dendroica coronata hooveri. HOOVER'S WARBLER. Mr. Beck has an adult female taken in winter at Berryessa. Evidently a common winter resident, associating with the Audubon's Warblers.

Dendroica nigrescens. BLACK-THROATED GRAY WARBLER. Several observed in April, 1899, back of Mt. Hamilton. (Beck).

Dendroica occidentalis. HERMIT WARBLER. A full-plumaged male taken in April, 1897, in the foot-hills near Berryessa, during migration. (Beck).

Wilsonia pusilla pileolata. PILEOLATED WARBLER. Nesting in willows at the mouth of San Francisquito Creek. (Grinnell). A common breeding species along the valley streams near the bay. Apparently breeds from early May through July. My dates are May 17, 1896, May 8, 1897.

Salpinctes obsoletus. ROCK WREN. Resident in suitable portions of the county, especially along the rocky eastern foot-hills, where it breeds. I have seldom failed to hear the fine song of this species at a rocky cut near Coyote when travelling back and forth on the Monterey road.

Catherpes mexicanus punctulatus. DOTTED CANYON WREN. Not an uncommon resident in the Berryessa foot-hills. Three sets of eggs taken, one on May 19, 1894, and two nests with young found on May 9 of the same year. The nests were built in small caves along a rocky bank. (Beck).

Anorthura hiemalis pacifica. WESTERN WINTER WREN. Recorded by Robt. E. Bruce at Stevens Creek. (CONDOR, II, p. 92). Frequently seen at Berryessa in winter. (Beck).

Sitta carolinensis aculeata. SLENDER-BILLED NUTHATCH. A common resident of white-oak tracts in the foot-hills. Messrs. H. R. Painton and F. A. Schneider found it breeding not uncommonly near New Almaden. I shot a male at Morgan Hill on Feb. 22, 1895.

Polioptila cærulea obscura. WESTERN GNATCATCHER. Seen in the hills back of Mt. Hamilton in April, 1899. Probably breeds. (Beck).

C. BARLOW.

* * *

On a recent trip into the mountains near Los Angeles, Cal. Messrs. Howard Robertson and H. S. Swarth collected, among other interesting birds, two Spotted Owls (*Syrnium occidentale*).

The White-crowned Sparrow.

(*Zonotrichia leucophrys*).

THIS bird has interested me greatly since I first saw it in the Cape St. Lucas region in the winter of 1881. I had previously seen it during the breeding season in the high Sierras in summer, not much below 7000 feet altitude, whereas in the Cape region it stayed in tropical vegetation near sea level, never above 1,000 feet altitude, in a temperature that was seldom below 70°—in March and April often much higher than that.

If heat, abundance of vegetation, insect and vegetable food bear close relation to bird nesting, why should it stay here six or seven months without breeding and then go north to breed, where the temperature is often as low as 30°. Its nests are mostly built on the cold, damp ground in sub-alpine meadows where the nights are nearly always chilly and the mornings frosty. It selects the coldest, chilliest part of its summer home in which to breed. Does this species require a cold climate to breed in? Do its young require the particular insect or other food of these mountain meadows? Do they find better protection here than elsewhere?

If safety is desired why do not these birds breed in the Cape region where birds have so few enemies that they have little use for protective coloration and none whatever for recognition coloring, neither here nor elsewhere. Can it postpone the time of nesting at will, until everything is propitious, regardless of the temperature of the preceding month or two? There were many of these birds on the borders of the large meadow at Blood's, Alpine Co., altitude 7,200 feet, on July 9, 1880. They were unmated, but five or six days later when the leaves on the willows in the meadow were large enough to give them seclusion, they occupied the meadow and commenced to build their nests. This was about a month later than usual.

There had been a very heavy snowfall in April which was very late in melting, but I think the temperature of May and June was nearly normal. At Big Trees, 2,500 feet lower, birds nested in 1880 about the average time. This species probably reared its young in these meadows from time immemorial, though it was not known to do so until 1876 or 1877. It appears to be attached to its inclement summer home, where it remains from six to seven weeks longer than is necessary, as the young of the year are able to migrate from August 1 to 15.

This year it remained about as late as usual, though severe summer frosts had *destroyed the seed and berry crop* at 7,000 feet altitude. It usually feeds upon seeds of plants here, and, wondering what it was subsisting upon, I shot three on Sept. 19 and found nothing in their stomachs but beetles and a house fly that one of them had eaten. While migrating in central California, it clings to the high mountains, occasionally appearing on the coast in the southern part of the state and southward.

It is abundant in the mountains of California in summer and in southern Lower California in winter, none remaining to winter as far north as San Diego. A female which I shot in the city of San Diego May 5, 1885, had small ovaries. She had probably recently come from the warm climate near Cape St. Lucas, as the individuals which spend the winter in the Cape region breed mostly if not entirely in the Sierras of California and western Nevada. I am aware that *Z. leucophrys* is not the only species that breeds in a cold climate and spends the winter in the tropics, and I should explain that my questions concerning it are intended to be suggestive mainly and to emphasize the facts I have mentioned. L. BELDING.

Stockton, Cal.

A List of Birds Observed on Mt. St. Helena, California

BY WALTER K. FISHER, STANFORD UNIVERSITY, CAL.

MOUNT ST. HELENA is a bold chaparral peak that blocks the northern end of Napa Valley. It lies partly in Napa, Sonoma, and Lake counties, and is one of the southernmost high mountains of the northern Coast Range. The peak itself is about 4600 feet in height, and rises far above all the neighboring hills. From Calistoga it appears as a large dome, from the base of which cliffy ridges radiate off in several directions. In between the ridges are deep picturesque canyons, some of which, especially those toward the Napa Valley, are taken up with ranches and vineyards. Timber extends up to a mean altitude of 2400 feet, above which the main covering of the mountain is a rather thick chaparral. On the southwestern half of the peak trees are more or less scattered, there being no very large areas of forest; but on the northeastern half trees are more abundant, and in canyons the stand of timber certainly deserves the name of forest. The woods are very attractive since they are composed of deciduous trees and conifers. The more conspicuous species are the following: Digger Pine (*Pinus sabiniana*), Narrow-cone Pine (*Pinus attenuata*), Yellow Pine (*Pinus ponderosa*), Sugar Pine (*Pinus lambertiana*), Douglas Spruce (*Pseudotsuga mucronata*), California Nutmeg (*Tumion californicum*), Alder (*Alnus rhombifolia*), Poplar (*Populus trichocarpa*), Black Oak (*Quercus californica*), Live Oak (*Quercus agrifolia*), Golden-cup Oak (*Quercus chrysolepis*), Tanbark Oak (*Quercus densiflora*), Blue Oak (*Quercus douglasi*), White Oak (*Quercus garryana*), Valley White Oak (*Quercus lobata*), Mountain Live Oak (*Quercus wizlizeni*), Bay (*Umbellularia californica*), Maple (*Acer macrophyllum*), Madrone (*Arbutus menziesi*). Such shrubs as the Flowering Dogwood (*Cornus nuttalli*), Azalea (*Azalea occidentalis*), Manzanita (*Arctostaphylos* of various species), Hazel (*Corylus rostrata californica*) Wild Grape (*Vitis californicus*) and Poison Oak (*Rhus diversiloba*), form a characteristic part of underbrush. Above the belt of trees the chaparral holds full sway, the following species being largely represented: Chamiso (*Adenostema fasciculatum*), Mountain Mahogany (*Cercocarpus betulæfolius*), Manzanita (*Arctostaphylos canescens, A. glandulosa, A. manzanita, et A. stanfordiana*), Fringe Bush (*Garrya fremonti*), Pigeon-berry (*Rhamnus californica*), likewise *Rhamnus ilicifolia*, *Quercus wislizeni* (scrub), *Xylothermia montana*, *Dendromecon rigidum*, *Ceanothus parryi*(?), *C. cuneatus*, *C. foliosus*,, *C. velutinus*, *C. cordulatus*(?) (usually in canyons).

The life zones represented on the mountain are two: Upper Sonoran and Transition. They are dove-tailed in a very confusing way. The former rises on hot slopes to at least 2500 feet (and undoubtedly much higher in some places) and is characterized by such plants as: *Pinus sabiniana*, *Quercus douglasi*, *Quercus agrifolia*, *Quercus garryana*, small forms of *Quercus lobata*, and *Vitis californicus*. The Transition below 2500 feet is confined to cool canyons and north slopes, and comprises such species as *Quercus californica*, *Quercus densiflora*, *Quercus chrysolepis*, *Arbutus menziesi*, *Pseudotsuga mucronata*, *Pinus ponderosa*, *Pinus lambertiana*, *Pinus attenuata*, *Tumion californicum*, *Cornus nuttalli*, *Azalea occidentalis*, *Corylus rostrata californica*, and others. The chaparral area is largely Transition, with certain Sonoran elements on the hotter slopes.

Late in summer water becomes scarce and is confined to a comparatively few springs and small seeping streams.

The following notes are based on observations made between August 29 and September 14, 1900. The publication of such a comparatively small list finds its excuse, perhaps, in the locality. Some of the forms on Mt. St. Helena are characteristic of the drier inland districts, while nearly related races are found in the humid coast belt just to the west. Thus we have closely related but ordinarily rather widely separated races brought close together. Geographical variation within narrow limits of territory is always of interest.

Oreortyx pictus plumiferus(?). PLUMED QUAIL.
This species is found on the upper slopes of the mountains in Transition. Its range overlaps that of *Lophortyx californicus*, which is found on the lower slopes. Unfortunately I did not secure a specimen of this quail, but it seems probable from analogy that the form is referable to *plumiferus*, rather than to *pictus* straight which is found in the humid area near the coast.

Lophortyx californicus vallicolus. VALLEY QUAIL.
This is an Upper Sonoran species which is abundant, particularly among the vineyards. It ranges a short distance into Transition.

Zenaidura macroura. MOURNING DOVE.
Abundant on lower slopes.

Cathartes aura. TURKEY BUZZARD.
Surprisingly common.

Buteo borealis calurus. WESTERN RED-TAIL.
Not infrequently seen. They were particularly noisy.

Buteo lineatus elegans. RED-BELLIED HAWK.
I observed one only.

Aquila chrysaetos. GOLDEN EAGLE.
A pair is reported to nest in some high cliffs near the summit.

Falco sparverius deserticolus. DESERT SPARROW HAWK.
Fairly common.

Megascops asio bendirei(?). CALIFORNIA SCREECH OWL.
I heard the well-known note of the Screech Owl, but saw no birds.

Bubo virginianus pacificus(?). WESTERN HORNED OWL.
I know of this species only from the report of hunters who have long been in the region.

Speotyto cunicularia hypogæa. BURROWING OWL.
This species properly belongs to the valley but it undoubtedly occurs on the lower slopes of the mountain.

Glaucidium gnoma californicum. CALIFORNIA PYGMY OWL.
I did not find this species, but it was very accurately described to me by Mr. D. Patton of the Toll House, who says he has seen the species on the mountain.

Dryobates pubescens gairdneri. GAIRDNER WOODPECKER.
This little woodpecker was not uncommon in the oak woods, Transition.

Melanerpes formicivorus bairdi. CALIFORNIA WOODPECKER.
Common.

Melanerpes torquatus. LEWIS WOODPECKER.
I observed several in the Transition zone.

Colaptes cafer collaris. RED-SHAFTED FLICKER.
Common.

Phalænoptilus nuttalli californicus. DUSKY POOR-WILL.
Several times, during the early evening, I heard the Poor-will's call near Toll House on the Lake County road. In each case it was probably the same bird.

Calypte anna. ANNA HUMMINGBIRD.
Common at Toll House, altitude 2300 feet.

Sayornis saya. SAY PHOEBE.
I collected a single specimen, the only one observed on the mountain.

Contopus richardsoni. WESTERN WOOD PEWEE.
I saw a few on the border between the timber and the chaparral belts.

Empidonax trailli. Traill Flycatcher.
Common in the Transition Zone.

Pica nuttalli. Yellow Billed Magpie.
Although this is really a valley bird, it is a species commonly found in the foothill regions, and probably comes up on the lower slopes of the mountain sporadically.

Cyanocitta stelleri frontalis. Blue-fronted Jay.
This is one of the commonest birds on the mountain. It is confined fairly well to the Transition Zone, from which it sometimes makes short sallies down the mountain. This jay is very destructive to corn. I observed a small field which had been ruined by this and the following species. I have compared a specimen from Mt. St. Helena with fairly typical *frontalis*, and with the darker form, *carbonacea*, from the Santa Cruz mountains. I find the St. Helena bird is referable to *frontalis*. This is interesting as showing a tendency toward paleness, though but a short distance from the dark coast forms.

Aphelocoma californica. California Jay.
Very abundant. This species is characteristic of the Upper Sonoran Zone, whence it ranges into Transition, for some distance.

Sturnella magna neglecta. Western Meadowlark.
Lower slopes of mountains and Napa Valley.

Icterus bullocki. Bullock Oriole.
I saw an old nest, (alt. 2300 ft.), but the birds had left the mountain.

Scolecophagus cyanocephalus. Brewer Blackbird.
This species ranges up on the mountain sporadically. I saw a few, evidently on their way over to Lake County, at 2500 feet, Transition.

Carpodacus mexicanus obscurus. Linnet.
Found around vineyards and ranches in the Upper Sonoran, also in Napa Valley (dilute Lower Sonoran).

Astragalinus psaltria. Arkansas Goldfinch.
I observed a few on the upper border of timber, flying about in the tall chaparral.

Pipilo maculatus megalonyx. Spurred Towhee.
Abundant.

Pipilo fuscus crissalis. California Towhee.
Common.

Zamelodia melanocephala microrhyncha Grinnell. Black-headed Grosbeak.
Fairly common in maple and black oak woods.

Piranga ludoviciana. Louisiana Tanager.
This species was very abundant in Transition woods. I saw no adult males.

Petrochelidon lunifrons. Cliff Swallow.
A few observed.

Tachycineta thalassina. Violet-Green Swallow.
A small flock was observed circling about a large rock on the upper slopes of the mountain. A specimen collected has the first traces of adult feathers on the back. The majority of the flock were apparently immature.

Vireo gilvus swainsoni. Western Warbling Vireo.
I observed one at close quarters, in a scrub oak, on the north slope of the mountain, alt. 1600 ft.

Vireo huttoni. Hutton Vireo.
Very common; all that I observed were in the Transition Zone.

Dendroica nigrescens. Black-throated Gray Warbler.
This beautiful warbler was exceedingly common in the Transition Zone. Its favorite haunt was rather open oak trees. I observed as many as a dozen in a single tree and this was no great exception.

Dendroica townsendi. Townsend Warbler.
I secured two in the Transition Zone. These were evidently migrants.

Wilsonia pusilla pileolata. PILEOLATED WARBLER.

Rather common in cool shady canyons.

Harporhynchus redivivus. CALIFORNIA THRASHER.

Common in the chaparral.

Salpinctes obsoletus. ROCK WREN.

I found this species about the craggy outcrops which are such a characteristic feature of the mountain and its spurs.

Catherpes mexicanus punctulatus. DOTTED CANYON WREN.

One specimen was taken in a rather narrow canyon at the foot of a steep crag. I saw no other birds.

Thryomanes bewicki spilurus. VIGORS WREN.

This species was taken in the open chaparral, where it was apparently common.

Anorthura hiemalis pacifica. WESTERN WINTER WREN.

I found this tiny wren common in the heaviest woods, particularly in dark young growth of the Douglas spruce. Here it seemed to delight in the "spookiest" corners obtainable.

Certhia familiaris occidentalis. CALIFORNIA CREEPER.

A few were observed.

Sitta carolinensis aculeata. SLENDER-BILLED NUTHATCH.

One specimen was taken, evidently a migrant.

Sitta canadensis. RED-BREASTED NUTHATCH.

I observed a small company of these birds working in some young Douglas spruce. One specimen was shot for identification.

Parus inornatus. PLAIN TITMOUSE.

Common.

Parus rufescens. RED-BACKED CHICKADEE.

This species was very common on the mountain during my stay. From the locality one would expect to find *P. r. neglectus*, but the specimen collected has been identified as typical *rufescens* by Dr. A. K. Fisher. Further collecting would probably have revealed true *neglectus*, for I am at present unwilling to admit that all the chickadees were migrants; the specimen collected undoubtedly was.

Chamæa fasciata. PALLID WREN-TIT.

One of the commonest sounds in the chaparral portions of the mountain was the Wren-tit's song. Sometimes they would hop about in the thick chamiso almost within reach of my hand, uttering querulous observations, the white iris of their eyes peering attentively out of the shadows. I have compared this form with *fasciata intermedia* and with *fasciata typica* from southern California, and find it is very close to, if not identical with the latter.

Psaltriparus minimus californicus. CALIFORNIA BUSH-TIT.

I observed several small flocks.

Regulus satrapa olivaceus. WESTERN GOLDEN-CROWNED KINGLET.

One specimen was taken. I heard them frequently in the tall trees.

Polioptila cærulea obscura. WESTERN GNATCATCHER.

The Gnatcatcher was one of the most characteristic birds of the chaparral slopes. Their songs were continually heard and the birds themselves were frequently seen. Several times when they were flitting straight away, with their usual nonchalant air, I have lost sight of the birds by distance, but continued to see tiny flashes of black and white from their restless tails.

Hylocichla aonalaschkæ sequoiensis (Belding). SIERRA THRUSH.

One specimen was taken in a thick growth of young Douglas Spruces. (Identified by Dr. A. K. Fisher).

Merula migratoria propinqua. WESTERN ROBIN.

Common.

Sialia mexicana occidentalis. WESTERN BLUEBIRD.

I saw a small company of immature birds with one or two old ones feeding in a vineyard.

Communications

A Protest Against the Indiscriminate Use of Poison by Orchardists.

Editor The Condor.—The proposed new bird law which was considered at the last meeting of The Cooper Ornithological Club, met with the hearty approval of its members, and the discussion which followed illustrated the importance of concentrated action in such matters. In this case, among other methods of destroying birds, that of poisoning, which prevails so extensively in Southern California, was mentioned by the writer. At once enough facts were presented by the members to establish beyond question that this practice, which destroys the beneficial as well as the obnoxious birds, should be suppressed.

Since the meeting I have taken the trouble to write to friends and acquaintances in different parts of Southern California in regard to poisoning of birds in their locality. The evidence from this source shows that most of the animosity is against the linnet or house finch. In outlying districts where little fruit is raised, he remains with it from the start, and no doubt is a pest to that particular orchard. Powder and shot cost money and require constant vigilance in its use, so the orchardist resorts to cups of poisoned water and broken fruit dosed with arsenic or strychnine, placed in neighboring trees. The linnets might, and do, rain down in clouds, without protest; but it happens that about the time of the ripening of the first fruits our beautiful Louisiana Tanager passes through Southern California on its northern migration, some years in immense numbers.

He carries his appetite with him and is sure to meet one of the many death-traps set for the linnet and is destroyed by the thousands, although he tarries but a few days and does no more damage than he is entitled to do. I have myself seen *156 birds dead under one tree*, of which 130 were tanagers, all the result of one morning's work. The fact was agitated in the local papers, but there being no law protecting the bird, it had no effect.

A letter received today from Miss Mollie Bryan, of Orange, who is much interested in bird protection, gives a graphic account of the methods and actual results of bird poisoning. I quote from it as follows: "I have taken a little time to enquire about the birds poisoned here. I know of but one orchardist in Orange who has poisoned to protect loquats and I cannot obtain accurate numbers with regard to the mischief he has done. Three years ago he killed principally tanagers, some orioles, the rest linnets, the numbers running up into the hundreds. I remember hearing at the time that three hundred had been killed before the season was over. The next year the linnets were the most numerous of the killed. A friend has just told me she was visiting at this place, saw the fruit poisoned with arsenic, tied in the ornamental trees 'and the poor little dead linnets literally rained down. I gathered my dress-skirt full of the dead birds and brought them home.' But the orchardist said that the tanagers were very scarce that year; he had not killed one the day my friend was there. And this year he says there has been but few about his place, though I could tell him they were plentiful at my home.

"The second year his numbers ran to 'about a thousand,' but mostly linnets. My informants are reliable, but they have forgotten the exact numbers, but all are sure that my statement of three hundred is not exaggerated in the least. The idea of linnets eating apricot fruit-buds seems to be exploded, and poisoning for that has stopped in this section, though two years ago it was universally done in San Bernardino Co., and the ranchers were very proud of the work of destruction they were doing. That was done by putting cups of poisoned water in the trees. The most wholesale slaughter I have ever known of was out near Victor or Hesperia. I did know the rancher's name; he had last year the only bearing orchard in the community in which he lived, and killed *one thousand tanagers* in one spring. That was not in my locality, but it seems so horrible I cannot refrain from telling it."

I have no doubt from the letters I have received that this slaughter of the innocents goes on from year to year with more or less persistence according to local conditions. We may not be able to stop the shooting of marauding birds and perhaps it is not best to try to, for the farmer will usually shoot at the ones that pester him the most, but the Club should make a strong fight for a clause in the proposed law prohibiting the use of poisons which kill indiscriminately.

Frank S. Daggett.

Pasadena, Cal., Oct. 10, 1900.

Are Blackbirds Injurious or Beneficial?

Editor The Condor:

A note in connection with the recent bulletin of the Department of Agriculture on "The Food of Bobolinks, Blackbirds and Grackles" may prove interesting. Brewer's Blackbird is shown by it to have eaten 60 per cent. of grain, mostly oats. As few oats are cultivated in California, they must have been mostly wild oats, one of the wheat-grower's greatest pests in most parts of the state. Brewer's Blackbird probes for wheat kernels of young grain and often destroys the wheat plant, but it is not as bad in this respect as the Western Meadowlark. However, both species eat many grasshoppers in a year and I cannot say that the are not beneficial, rather than otherwise. To determine that, long, careful observations are required. A species at one locality may be injurious and in another highly beneficial, and have different values at different seasons of the year. Knowing this, I thought best not to publish the investigations in regard to the food of birds that we had made, in the *Land Birds of the Pacific District*.

L. BELDING.

Stockton, Cal., Oct. 7, 1900.

Publications Reviewed

PACIFIC COAST AVIFAUNA NO. 1, Birds of the Kozebue Sound Region, Alaska. By Joseph Grinnell, pp. 80, 1 map. Published by the Cooper Ornithological Club of California, Santa Clara, Cal., November 14, 1900.

This paper is a very solid and important contribution to our knowledge of Alaskan birds. It is the result of observations covering more than a year in the region of which it treats, and is consequently of unusual interest and value. The report consists of an "Introduction," "Field-notes, "Bibliography" and "Check-list." The introduction contains a brief account of the expedition and a description of the general features of the Kotzebue Sound region. Then follows, under Field-notes, a fully annotated list of 113 species and sub-species of birds actually collected or observed by the author. Of these 61 are water birds and 52 are land birds. One form, *Lanius borealis invictus* is described as new. The "Bibliography" cites the principal authors and titles referring to Kotzebue Sound ornithology. With each title is given a list of birds recorded as new, up to date, by that author, from the Kotzebue Sound region. The "Checklist" is a very briefly annotated list of 150 species and sub-species, and covers all the birds which are known from the region under consideration.

The region covered by the paper includes "the district coastwise between Cape Prince of Wales and Point Hope, and thence eastward to the headwaters of the streams flowing into Kotzebue Sound. This hydrographic basin * * * consists of the valleys of the Noatak, Kowak, Selawik and Buckland Rivers, as well as several smaller streams, all of which empty into Kotzebue Sound." In the spring of 1898 Grinnell joined a company of prospectors who intended to look for gold in the valley of the Kowak. They were thoroughly outfitted, owning their own schooner-yacht, the "Penelope," and besides taking material for a stern-wheel river steamer to be used on the larger streams of the region. The gold, however, did not materialize and the author rather naively remarks, "but this fact was rather fortunate for the writer and his ornithological pursuits, for he was enabled to devote almost his entire time during the year spent in the Kotzebue Region to collecting specimens and notes on its avifauna." The expedition left San Francisco on May 19, and on the 27th of June arrived at Cape Prince of Wales. Cape Blossom was reached July 9, and the site of winter quarters on the Kowak, August 12. Side trips were made during the following year into the surrounding country. The expedition left Kotzebue Sound on the 10th of July, 1899. Grinnell secured about 700 bird skins and as many eggs. "The immediate coast district bordering Kotzebue Sound is chiefly level or rolling tundra. * * * Throughout the tundra lands and hilly country are numerous ponds and lakes, some of considerable extent. * * * The land is mostly covered with a deep layer of moss and lichens. But in depressions, and bordering lakes and sloughs, are stretches of grass, in some places growing quite tall, and in others forming lawn-like meadows." Timber does not reach the coast, but inland, in the upper river valleys, are extensive areas of spruce, birch and cottonwood. "The Kowak valley averages about fifteen miles wide, the north side being formed by a range of mountains rising as high as four thousand feet, while on the south a lower range forms the divide between the Kowak and Selawik."

It will be impossible to give more than a glimpse into the "Field-notes." In most cases the annotations are full and include observations on distribution and life history. Considerable attention is devoted to nesting habits and eggs, and Grinnell certainly merits praise for his painstaking efforts in this line. If we are not mistaken much will be found under Field-notes which is of more than passing interest. We have particularly enjoyed reading the accounts of the Horned Puffin, Long-tailed Jaeger, Short-billed Gull, Red Phalarope, Northern Phalarope, Wilson Snipe, Hudsonian Curlew, Northern Spruce Grouse, Willow and Rock Ptarmigan, American Hawk Owl, Alaskan Jay, Hoary Redpoll, Alaskan Longspur, Siberian Yellow Wagtail, Kennicott Willow Warbler, Varied Thrush and Red-spotted Blue-throat. In the case of the Red Phalarope (*Crymophilus fulicarius*) the usual order of coloration in birds is reversed. "The females are brightest colored, apparently do most of the courting, and correspondingly it was always the male that was flushed from the nest." The curious song flight of the Wilson Snipe (*Gallinago delicata*) is described. Here in the west this is oftener heard than seen. A good account is given of both the Willow and the Rock Ptarmigan. The former "proved to be a common species throughout the lowlands from Cape Blossom up the Kowak Valley." Grinnell secured very large series of both *Lagopus lagopus* and *L. rupestris* and gives an account of the moulting in the two species. *L. lagopus* begins to change from summer to winter plumage in August, and goes on until well into October. "Three specimens taken on October 6 have the back, upper tail coverts, breast, head and neck all around still chiefly dark, though many white feathers are mixed in; the rest of the lower parts and the wings, including their coverts, are entirely white." The moult in the fall "advances in just the reverse order from that in the spring, but giving the same protective distribution of coloration, that is, dark above and light beneath. * * * Both sexes in the fall apparently undergo moulting at the same time; but in the spring the male precedes the female by three weeks or more. The first appearance of dark feathers is evidenced by two males taken on April 4th." On April 26 the first males in perfect courting plumage were secured. Then follows the barred summer plumage. "The male Willow Ptarmigan thus undergoes at least three distinct moults during the year, though but one of these, that in the fall is complete. In the case of the females my specimens seem to indicate but two plumages, the winter, like that of the male, and the summer, which is different from either the courting or the summer male plumage. * * * In both sexes the tarsi and tops of the toes moult but once—in the fall. But in May, after the heavy pedal feathering is of no further use as snow shoes, the feathers apparently become brittle, for in a short time they become so abraded that the feet and tarsi are almost bare." The notes on the feeding habits and nesting of this species are of interest. During the long winter the ptarmigan subsist entirely on large quantities of buds and tender twigs of dwarf alder and willow. In the Rock Ptarmigan the female moults long before the male, just the reverse of the Willow Ptarmigan. In speaking of the Rock Ptarmigan Grinnell says:

"The Rock Ptarmigan, according to my experience, are confined exclusively to the higher hill-tops and mountains in summer, and at such elevations the snow remains later in the spring and comes much earlier in the fall than in the valley, leaving a very brief summer. No Rock Ptarmigan were detected in the Kowak Valley until February 11th. On account of the light snow-fall in the early part of the winter, they probably found sufficient forage on the mountain sides up to this date. However, during March and April flocks of from a dozen to a hundred were often met with in the lowlands. These flocks could be traced up by following their tracks, especially if the snow was freshly fallen or laid by the wind. Then tracks of a large flock of Rock Ptarmigan would form a broad swath and extend across the tundra for miles, the individual lines of tracks zigzagging back and forth so as to take in every willow twig or bunch of grass sticking up through the snow, but all tending in the same general direction. The birds, when on these feeding marches, apparently seldom take flight unless disturbed, and I have followed these roads from one set of "forms" in the snow, where the birds had passed the preceding night, to the second set of "forms" of the succeeding night, and then finally found them, doubtless on their second day's walk without having taken flight; except occasional individuals left behind."

He also includes an entertaining little story which ought to prove a tender morsel for extremists in the theory of adaptation to peculiar environment. "The native name for the Rock Ptarmigan is also A-gar′i-uk in common with the Willow Ptarmigan, but the former is also known by the distinctive name, Nik-sak-toong′uk, referring to the black on the sides of the head. The natives say this black is so the Rock Ptarmigan, which lives on the mountains where the snow covers the ground till mid-summer, will not be blinded by the intense glare." The natives, it seems, use a similar contrivance to prevent snow-blindness.

Picoides a. alascensis proved to be the only woodpecker detected in the Kowak region. The new shrike, *Lanius borealis invictus*, "differs from *L. borealis borealis* in larger size, paler coloration dorsally, and greater extent of white markings." *Parus hudsonicus evura* Coues is recognized instead of *sloneyi* Ridgway. Grinnell secured an immature female of *Phyllopsuesles borealis* August 21, '98, on the Kowak. One other was seen later but not secured. He discreetly does not tell us his feelings when this bird unceremoniously decamped "into the deep blue of the northern horizon." Unusual interest is attached to the capture of such an ornithological rarity in America as *Cyanecula suecica*. An adult male was taken, and the species undoubtedly breeds at Cape Blossom. The account of *Hesperocichla nævia* is particularly valuable because it treats of a bird which heretofore seems to have been largely avoided by writers.

Grinnell's observations have added the following species not before accredited to the Kotzebue region: *Cyclorrhynchus psittaculus*, *Simorhynchus pusillus*, *Simorhynchus cristatellus*, *Stercorarius pomarinus*, *Fulmarus glacialis rodgersii*, *Phalacrocorax pelagicus robuslus*, *Chen hyperborea*, *Philacle canagica*, *Tringa canutus*, *Ereuneles occidentalis*, *Tringa bairdii*, *Aphriza virgala*, *Picoides americanus alascensis*, *Pinicola enuclealor alascensis*, *Ampelis garrulus*, *Regulus calendula*, *Cyanecula suecica*.

A good map is appended showing the localities given in the report.

Pacific Coast Avifauna No. 1 is a very readable paper, the chief value of which is the biographical character of the bird notes, and the region and season in which these notes were taken. We would be glad to have seen lists comparing summer and permanent residents and likewise areal lists, because the life zone of the coast is evidently not the same as that inland. This number starts a series of special papers, which we foresee will play no small part in western ornithology. We are bound to say the first number fulfils the requirements of a first-class publication and does credit to the club which is responsible for launching it into a world already flooded with so many good efforts. W. K. F.

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North American Fauna No. 19 contains the "Results of a Biological Reconnoissance of the Yukon River Region," Alaska. The "Annotated List of Birds" is by Dr. L. B. Bishop, who accompanied the expedition as a volunteer assistant. The List proper consists of 171 species and subspecies, all of which are stated to have been seen or obtained by the party. There are more or less extended field notes, and in some cases technical remarks. Preceding the list is a four-page "Introduction" and a "Classified List of Species." The map accompanying this number of the *North American Fauna* serves to show the route traversed by the expedition. But we are sorry to find that only a very few of the localities mentioned in the text are indicated on the map, a fault which is quite obvious to one not having at hand any recent charts of Alaska.

Over 2000 miles of Alaskan territory were covered by the expedition, including nearly the whole length of the Yukon River. This being all accomplished within four months' time, a thorough exploration of any single locality passed through could not be expected; and at the most, the time for observation and collecting at any one point was altogether too short. The results of this trip are, therefore, quite remarkable. Eighteen species are recorded for the first time from the Upper Yukon. They are as follows: *Tringa bairdii*, *Symphemia semipalmata inornata*, *Buteo borealis calurus*, *Falco sparverius*, *Contopus borealis*, *Contopus richardsoni saturatus*, *Empidonax traillii alnorum*, *Empidonax hammondi*, *Spinus pinus*, *Spizella socialis arizonæ*, *Passerella iliaca*, *Helminthophila peregrina*, *Dendroica townsendi*, *Wilsonia pusilla pileolata*, *Sitta canadensis*, *Hylocichla aonalaschkæ*, *H. aonalaschkæ pallasi*, *Saxicola œnanthe*.

Nine species are newly recorded from southeastern Alaska, mostly taken in the vicinity of Skaguay and Glacier. These are: *Æchmophorus occidentalis*, *Xema sabinii*, *Lagopus leucurus*, *Picoides americanus alascensis*, *Contopus richardsoni saturatus*, *Empidonax hammondi*, *Junco hyemalis connectens*, *Sitta canadensis*, *Merula migratoria*.

Haliæetus albicilla, the Gray Sea Eagle, is for the first time recorded from western North America, on the strength of a young specimen found dead at Unalaska. *Larus philadelphia*, *Tringa maculata*, *Tringa acuminata* and *Loxia curvirostra minor* are also recorded as new to Unalaska. *Larus philadelphia* and *Tringa acuminata* are added to the avifauna of the Pribilof Islands.

A number of recently described races of western birds are recognized in the list, among which we note *Canachites canadensis osgoodi* Bishop, which has seemed to us to be identical with *C. canadensis labradorius* Bangs, no matter what ought to be the case from a zoo-graphical point of view. We hope the A. O. U. Committee will be enabled to see a good series of Alaskan *Canachites* before passing on the alleged race.

The biographical notes on some of the species, although brief, are of especial interest. For instance, under the Violet-green Swallow (*Tachycineta thalassina*) which was found to be more or less common along the Upper Yukon, may be quoted: "They were nesting about the cliff as a rule, but several times we saw them enter holes in banks similar to those of *Clivicola riparia*, while at Fort Selkirk they were nesting in the interstices between the logs of the cabins." Townsend's Solitaire was also found on the Upper Yukon, and its remarkably beautiful song is described at length.

Thus are the birds of even the most remote corners of North America rapidly becoming known. Alaska seems to be a region of especial interest just now. But there certainly still remains many surprises for the observer who is willing to make systematic notes and collections for an extended period in any one of the many out-of-the-way districts, especially of the southern coast of Alaska. J. G.

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Year Book of the Department of Agriculture 1899. (Washington, 1900). The present year book is an unusually interesting volume, embracing as it does the report of each bureau of "the progress made in the application to agriculture of the particular science with which it is concerned." Ornithology and its progress during the century is ably handled by Dr. T. S. Palmer in a noteworthy contribution entitled "A Review of Economic Ornithology in the United States." The results of fourteen years' work of the Biological Survey are shown, and the commercial uses of birds taken up with reference to their value as game and as egg, guano and feather producers, while on the other hand, their value as insect and weed destroyers is forcibly pointed out. A *resume* of the various laws enacted for bird protection is given and the paper is illustrated with two full-page plates, one showing the wholesale collecting of albatross eggs and the other a vast ookery of the birds on Laysan Island, H. I. The complete Year Book consists of 880 pages. —C. B.

DESCRIPTION OF A NEW SUBSPECIES OF *Meleagris gallopavo* AND PROPOSED CHANGES N THE NOMENCLATURE OF CERTAIN NORTH AMERICAN BIRDS. By E. W. Nelson. (Author's separate from the *Auk* XVII, No. 2, Apl. 1900)

This paper is of interest to Coast ornithologists in that it proposes to separate the flickers of California and the rocky mountain region from *colaptes cafer*, under the sub-specific name of *Colaptes cafer collaris* (Vig.), the subspecies being "distinguished from true *cafer* by its larger size, decidedly longer bills, paler upper parts, more sparsely spotted under parts and broader black tips to tail-feathers." The range or *C. c. saturatior* remains as before.

Sayornis nigricans is subdivided into three races, of which *Saynoris n. semiatra* (Vigors) is ascribed to the "Pacific Coast of Mexico and the United States from Colima to Oregon, including most of Arizona." It is stated that the type localities of both *Colaptes cafer collaris* and *Sayornis nigricans semiatra* may be considered as Monterey, Cal.—C. B.

FOOD OF THE BOBOLINK, BLACKBIRDS AND GRACKLES. (Bulletin No. 13, Department of Agriculture. By F. E. L. Beal, 1900).

This is another of the excellent food bulletins issued by the Biological Survey. The food habits of the several birds are gone into minutely, and in each case large numbers of stomachs have been examined and the contents tabulated in careful form. Notes from observers are also given, all of which permits of the possibility of making the deductions correct, so that they may be applied generally to any locality. The bobolink finds the balance against him, owing to the extensive depredations upon the rice crop in the South, aside from which the species does not appear to be injurious. Much evidence is presented for and against the blackbirds, the chief danger seeming to be in the localities where the birds congregate in great numbers, in which cases their capacity to do damage is tremenduous if the opportunity offers. This bulletin should be in the hands of every ornithologist as well as every enterprising agriculturist, that they may appreciate the exceedingly valuable and systematic work which is being done by the Biological Survey for agricultural interests.—C. B.

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Mr. Joseph Mailliard presented a paper entitled "Spring Notes from Merced County, California" at a recent meeting of the Section of Ornithology of the California Academy of Sciences.

Publications Received

DUGMORE A. RADCLYFFE, Bird Homes. (See Sept. review).

KOBBE, W. H. The Birds of Cape Disappointment, Washington. (From 'The Auk' XVII, Oct. 1900).

NELSON, E. W. Descriptions of Thirty New North American Birds, in the Biological Survey Collection. (from 'The Auk,' XVII, July 1900.

NELSON, E. W. Description of a New Subspecies of *Meleagris gallopavo* and Proposed Changes in the Nomenclature of certain North American Birds. (From 'The Auk,' XVII, April, 1900.

OSGOOD, WILFRED H., North American Fauna No. 18; Revision of the Pocket Mice of the Genus Perognathus. Sept. 20, 1900.

SHUFELDT, Dr. R. W. Professor Collett on the Morphology of the Cranium and the Auricular Openings in the North-European Species of the Family *Strigidæ*. (Reprint from the Journal of Morphology, XVII No. 1).

VAN DENBURGH, J. Notes on Some Birds of Santa Clara Co., California (See Sept. review).

Annual Report of the U. S. National Museum 1898.

Aside from the formal report of the work accomplished by the Museum during the year, the volume is devoted to an exhaustive treatise on "The Crocodilians, Lizards and Snakes of North America" by Edw. D. Cope.

A Review of Economic Ornithology in the United States. By T. S. Palmer (Reprint from Yearbook for 1899).

Auk, The XVII, Nos. 3, 4. July. October 1900.

Bird-Lore, II Nos. 4, 5. Aug. Oct. 1900.

Bittern, The I, Nos. 2, 3. Aug. Oct. 1900.

Biological Survey Circular No. 28. Directory of state officials and organizations concerned with the protection of birds and game.

Biological Survey Circular No. 29. Protection and importation of birds under act of Congress approved May 25, 1900.

Biological Survey Circular No. 31. Information Concerning Game; Seasons, Shipment, and Sale.

Bulletin No. 13, U. S. Department of Agriculture. Food of the Bobolink, Blackbirds and Grackles. 1900.

Bulletin No. 56, Agricultural Experiment Station of the Agricultural College of Colorado. A second appendix to Bulletin No. 37 on 'The Birds of Colorado.' May. 1900.

Bulletin of the Chicago Academy of Sciences, II. Nos. III and IV, June 1900.

Journal of the Maine Ornithological Society, II. No. 3, July 1900.

Land of Sunshine XIII, Nos. 2, 3 and 4. July, Aug., Sept.-Oct., '00.

Maine Sportsman VII, Nos. 84, 85, 86. Aug., Sept., Oct., 1900.

North American Fauna No. 19. Results of a Biological Reconnaisance of the Yukon River Region. Oct. 6, 1900.

Notes on Rhode Island Ornithology I, Nos. 3, 4. July, Oct. 1900.

Oologist, The XVII Nos. 7, 8. July-Aug., Sept.-Oct., 1900.

Ornithologisches Jahrbuch XI, Nos. 4 and 5. July-Oct., 1900.

Osprey, The IV, Nos. 10, 11–12, June, July–Aug., 1900.

Our Animal Friends XXVII, Nos. 11, 12, XXIII, Nos. 1, 2, July–Oct., 1900.

Our Dumb Animals XXXIII, Nos. 2, 3, 4. July, Aug., Sept., 1900.

Plant World. III. Nos. 6, 7, 8 and 9. June July Aug., Sept '00.

Popular Science XXXIV Nos. 8, 9, 10, 11. Aug.-Nov., 1900.

Recreation, XIII, Nos. 2, 3, 4, 5. Aug-Nov. 1900.

Sunset, V, Nos 2, 3, June, July, 1900.

Wilson Bulletin, No. 32, July, 1900.

Year Book, Dept. of Agriculture, 1899.

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Official Minutes of Northern Division

SEPTEMBER

The Club met at the residence of C. Barlow in Santa Clara with twelve members present and president Emerson in the chair. Mr. Chas. R. Keyes was present as a visitor. Six names were proposed for membership, as follows: Chas. R. Keyes of Berkeley, Miss A. F. Keefer of Oakland, F. C. Clark of Napa, Forrest Hanford of Oakland. Wm. L. Finley of Berkeley and F. S. Barnhart of Los Banos.

The secretary presented the first draft of a proposed bill for the protection of all unprotected Californian native birds which was prepared after a conference with Senator E. K. Taylor. The clauses of the bill were carefully discussed and the completed draft ordered submitted to the Southern Division for action.

The scientific portion of the program was proceeded to and the following papers read: "Breeding of *Agelaius tricolor* in Madera Co., Cal." by Joseph Mailliard; "Nesting of Clarke's Nutcracker" by W. H. Parker; "Probable Causes of Bird Scarcity in Parts of the Sierras" by J. J. Williams. Upon motion, the next meeting was voted to be held at Palo Alto. Adjourned.

NOVEMBER

The Northern Division met Nov. 3 at the residence of Theodore J. Hoover in Palo Alto with thirteen members present and Messrs. F. H. Fowler and R. E. Snodgrass as visitors. Six active members were elected as follows: Chas. R. Keyes of Berkeley; Miss A. F. Keefer of Oakland; Forrest Hanford of Oakland; F. S. Barnhart of Los Banos; F. C. Clark of Napa and William L. Finley of Berkeley. The proposed Bird Bill of the Club was given its final reading and was amended by the insertion of an anti-poison clause as suggested by the Southern Division. The bill was then adopted. It was ordered that Mr. F. M. Dille's offer of 100 Colorado bird skins to the Club, as also Mr. Emerson's of 200 skins, both be accepted, and that the work of getting together a Club collection be pushed. The secretary was named as temporary custodian of such skins as might be sent in.

Five names were proposed for active membership as follows: F. H. Fowler of Palo Alto, M. P. Anderson of Menlo Park; J. S. Burcham of Stanford; R. E. Snodgrass and J. F. Illingworth of Palo Alto; action to be taken at the next meeting, Remarks were made suggesting a change in the cover of THE CONDOR for its third volume. Referred to committee consisting of W. O. Emerson, W. K. Fisher and C. A. Nace with power to act. Nominations for officers for the Northern Division and Club-at-Large for 1901 were opened, resulting as follows: for president, Joseph Grinnell; vice-president, H. R. Taylor; secretary, C. Barlow; treasurer, Donald A. Cohen.

The matter of dropping the possessive case in common bird names appearing in printed lists in THE CONDOR was discussed pro and con. No action was taken. The September and October reports of the Southern Division were read and filed. The following papers were presented: "Nesting of the California Condor on the Slopes of the Cuyamacas" by P. L. Gedney; "The White-crowned Sparrow," by L. Belding; "In Defense of the Chipmunk" by L. Belding and Ernest Adams; "Parrots in the United States" by R. D. Lusk; "Occurrence in California of Harris's Sparrow" by W. Otto Emerson. The Division adjourned to meet at the residence of E. H. Skinner in San Jose Jan 12.

C. BARLOW, Division Secretary.

Official Minutes of Southern Division.

SEPTEMBER

The Division met Sept. 27 at the studio of Roth Reynolds in Los Angeles with thirteen members present. Mr. F. T. Schriver was present as a visitor. Roy Pemberton of Los Angeles was elected to membership. The name of E. D. Tredwell of Santa Monica was proposed by Mr. Chambers. It was decided to hold the annual outing meeting at Mt. Wilson on Oct. 29. In the matter of the proposed amendment to Sec. 626 of the Penal Code relating to bird protection, the secretary was instructed to notify the Northern Division of the general approval of the draft as prepared calling attention, however, to the omission of an anti-poison clause and earnestly requesting the same to be inserted. One paper, "Breeding of *Agelaius tricolor* in Madera Co., Cal." by Joseph Mailliard of the Northern Division was read.

OCTOBER

The outing meeting was held on October 27 at Dark Canon in the Arroyo Seco, the start being made from Altadena where Mr. Groesbeck met the party and conveyed them to the entrance of the canon. A very pleasant day was spent collecting, many more birds than usual being seen, probably on account of the recent fires farther back in the mountains, the birds being driven down to the lower canons for food and shelter. Vice-President Daggett called the meeting to order and C. E. Groesbeck acted a secretary pro tem. The bird protection bill was amended by the insertion of a clause prohibiting the killing of birds by the use of poison. Two new members were proposed: Mrs. A. C. Wilson of Cucamonga and Mrs. J. E. Pleasants of Santa Ana. The meeting adjourned until Nov. 29.

NOTICE TO SOUTHERN DIVISION MEMBERS.

At the next meeting to be held on Nov. 29, the nomination of officers for the ensuing year will take place; also arrangements will be made for the annual meeting and banquet. Notice of place of meeting will be given by postal and it is especially desired that a full attendance be had.

HOWARD ROBERTSON, Division Sec'y.

* * *

Wilfred H. Osgood of the Biological Survey, with Edmund Heller of Stanford as assistant, has returned from a successful expedition into British Columbia where large collections of zoological and botanical specimens were made. The expedition worked from Vancouver Island north to Unalaska, including Kodiak Island and Cook Inlet. Mr. Osgood is visiting a few days at his home in San Jose, prior to returning East.

The Beck Expedition to the Galapagos Islands, under the management of R. H. Beck of Berryessa, accompanied by Ernest Adams of San Jose and several assistants, will sail from San Francisco about Nov. 15. A 60-ton schooner has been chartered for the trip and the expedition will return about May 1.

In *North American Fauna No. 19*, covering the Yukon River expedition of the Biological Survey, Mr. Wilfred H. Osgood supplies the General Account of the Region and in his Annotated List of Mammals describes nine new species and subspecies of mammals from the Yukon.

Occurrence in California of Harris's Sparrow.

(*Zonotrichia querula*).

While watching some Golden-crowned Sparrows (*Z. coronata*) on the evening of October 27, I noted what I at first took to be an English Sparrow as it flew up from an old stone mortar full of water, where it had been bathing. As it perched in a rose bush and was dressing its feathers, I thought it could be nothing more than a partial albino *Zonotrichia*, but with a black patch on the throat as in the English Sparrow. By the time I could get to my collecting gun and back, it had flown to roost with the Golden-crowned Sparrows.

Next morning on looking out of a window at the sparrows feeding along the driveway, here again was my bird of the night before, and this time it was brought to the ground, constituting another *Zonotrichia* record for California. The bird proved to be a male in normal plumage. On looking up available literature on Pacific Coast birds I find this species is mentioned only in the A. O. U. Checklist as occuring accidentally on Vancouver Island and in British Columbia and Oregon.

Mr. Clark P. Streator's list of British Columbia birds does not mention the occurrence of this species in localities where are recorded other forms from east of the Rocky Mountains, such as Kingbird, Red-eyed Vireo, Orange-crowned Warbler, American Redstart and Catbird, the three latter species being recorded as breeding.

During the fall movement of northern bird life, more stragglers seem to work their way south on the west side of the Rocky Mountains than is the case in the northward spring migration. At least such have been my observations for the past twenty years.

W. OTTO EMERSON.

Haywards, Cal., Oct. 31, 1900.

THE CONDOR.

Bulletin of the

COOPER ORNITHOLOGICAL CLUB

OF CALIFORNIA.

Published bi-monthly at Santa Clara, Cal., in the interests and as Official Organ of the Club.

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This issue of The Condor was mailed Nov. 16.

EDITORIAL NOTES.

The A. O. U. Associate Membership We learn from an excellent editorial in *Bird-Lore* for October that the American Ornithologists' Union Congress and a conference of representatives of the Audubon Societies will meet simultaneously in Cambridge, Mass. about Nov. 12, the idea being to promote a closer unity between the two associations, such as should exist between the parent and pupil, the editorial pointing out that the Audubon Societies' object is "to arouse interest in the study of birds, in short to make ornithologists," while "it is the province of the A. O. U. to enroll them in its membership, after the school day period has passed, and sustain their interest . . . . . which comes from association with others having kindred tastes." All of which will meet the approval of ornithologists generally.

The editorial mentioned quotes from Mr. McGregor's communication in the July-August CONDOR (p. 93) in which Mr. McGregor suggests the separation into two classes, of the associate membership of the A. O. U., one to include *bona fide* amateur ornithologists, the other to take in those who have affiliated themselves with the Union as merely a step of progression, with no thought of engaging in technical work. *Bird-Lore* commends the idea, but at the same time counsels fairness of opinion between the technical ornithologists and the purely Audubonian membership.

We believe frankly that such adverse feeling as may exist between these more or less widely divergent branches of the associate membership of the A. O. U.,—be it either imaginary or *de facto* is due as much to the uncompromising spirit of many of the Audubonians as to that of the active bird men. For several years past Coast ornithologists at least, have viewed the Audubonians as a class unalterably opposed to the killing of birds. This sentiment cropped out strongly when Dr. Coues edited the memorable *Osprey*, at which time general condemnation was heaped upon those writers who mentioned "takes" of either birds or eggs in their articles.

The condemnation was justified in a few cases, but the circumstance impressed many as being a campaign of opera glass vs. gun, with judgment and fairness omitted. Thus we believe that the 'amateur ornithological' class have dealt as kindly as they have been dealt with. It must be considered that in the West, especially, the taking of birds is a necessity to work out the various geographical variations, and the occasions arise for the collecting of a much greater number of birds than might be deemed justifiable in the East. Those on the ground must perforce judge of these conditions.

Should the associate membership of the A. O. U. eventually be divided into two classes as suggested, it is highly desirable that harmony prevail, but it is unreasonable to hint that the fault lies more with the technical ornithologists than elsewhere. Both classes are doing good work but differ as to method, and the "mutual respect" suggested by *Bird-Lore* can come about only by each class being allowed its proper freedom. The separation of the A. O. U. associate membership into two classes, as primarily suggested by Mr. McGregor, seems more or less certain to be brought about in the near future. *Bird-Lore* suggests that a class of "senior associates" limited to 100, be created. This would probably be sufficient and we shall hope to see such action taken.

Cooper Club's Bird Bill For a long time it has been an acknowledged fact that California has not possessed protective bird laws, aside from its game laws, worthy the name. At present a few laws grace the statute books intended to protect a limited category of birds, which are designated in a very general way as English skylarks, orioles, wild canaries, cranes (meaning herons) etc. It seems very doubtful if such a law would hold in a test case and little or no effort has been made to enforce it.

Accordingly the necessity and advisability for more stringent protective laws have arisen and it seems not inappropriate that the fight should be taken up by the Cooper Ornithological Club, since its efforts are and have been closely allied with the progress of ornithology in the State in recent years. This course has therefore been decided upon, and the sweeping bird protection bill which Senator E. K. Taylor will champion in the State Legislature in January, is to be given final consideration at the November meetings of both divisions of the Club.

The bill will then have been perfected, as viewed from any reasonable standpoint, and the concerted action of the Club's membership will be called into play in the matter of urging favorable action upon the part of the various county representatives. The action of the Cooper Ornithological Club will receive the support of the League of American Sportsmen, an organization ever ready to wield its influence for the enactment of protective laws.

A clause prohibiting the indiscriminate use of poison by orchardists as a means of destroying noxious birds, the necessity of which is pointed out by Mr. Daggett's communication in this issue, will become a part of the bill, and every reasonable concession will be granted the agriculturist who can show that he suffers material damage from any certain bird species.

Many a meritorious movement has gone down to defeat and many a good fight has been fought for principle without direct result, but the proposed bill has been prepared in good faith and no stone will be left unturned to secure its passage. With such an earnest advocate behind it as Senator Taylor, it ia reasonable to confidently anticipate the successful passage of the bill, and the text as finally prepared, will be given space in the January CONDOR.

With this issue THE CONDOR closes its second volume with the feeling that congratulations are in order both upon the part of the management and of its subscribers. It scarcely seems that we have occupied the field for two full years, but such is the case. Volume I was accorded a generous reception by the fraternity and Volume II has exceeded it in size and also in the point of its illustrations. It has been found that twenty-four pages was the very smallest size in which the magazine could be gotten out in justice to western ornithology, and accordingly this has become the standard size of THE CONDOR.

With the realization that this journal afforded a prompt means of publication, western workers have patronized it freely, and it has served as the channel through which have flowed the most interesting and valuable productions of Californian and western ornithologists. We believe that the journal has firmly established itself among ornithologists who appreciate the fact that THE CONDOR is the exponent of a live Club of over 100 members, with solid backing.

The editors feel that it is unnecessary to indulge in promises for the third volume of the magazine, for its subscribers have taken its measure and know reasonably well what to expect. The continued support of old patrons is solicited, and those who have not known the magazine are invited to enroll themselves as subscribers. With the closing of the year, the editors desire to return thanks to many members of the Club as well as outsiders who have assisted in the work of making THE CONDOR a success.

An index for Volume II will be mailed with the January issue, Mr. McGregor having kindly consented to perform the office of indexer, which he did in such excellent form for Volume I. Subscribers whose subscriptions expire with this issue will be understood as wishing the magazine continued, unless notice is mailed the publishers to the contrary.

The announcement made in THE CONDOR during the latter part of 1899 that the Club would begin the publication of a series of special papers, separate and apart from THE CONDOR, has reached its fulfillment in the appearance of Mr. Joseph Grinnell's *Birds of the Kotzebue Sound Region, Alaska.* As was announced at the time, THE CONDOR in its regular course of publication has not been able to do entire justice to the volume of material which has been submitted, with the result that the Club has found it necessary to expand in order to meet the conditions which confront it.

The title of *Pacific Coast Avifauna* has been selected under which to publish these separate papers, and the Club may well congratulate itself that the series is inaugurated with such an excellent paper as the present one by Mr Grinnell. Several other papers intended for the series are in process, and with the extended and careful work which is being done on the coast, it is certain that the *Pacific Coast Avifauna* will be possessed of no uncertain value to ornithologists.

THE CONDOR, it is believed, enjoys the distinction of presenting the first published photographs of the nesting site and the egg *in situ* of the California Condor, the photographs accompanying Mr. Gedney's article is this issue having, by good fortune, been secured at a nesting site which was accessible to the collector, and which permitted the use of the camera. Mr. Gedney is to be congratulated upon his novel photographs, while this magazine once more modestly asserts its claim of publishing the latest and freshest bird news in the West.

* * *

Donald A. Cohen is the author of a series of "bird talks" in the Alameda *Argus*, each chapter having the true bird protection ring. All such writings help to mould public sentiment in favor of the birds, and every ornithologist can do a good work by contributing to his local paper along this line.

John O. Snyder of Stanford University has returned with Dr. David Starr Jordan from an expedition into Japanese waters, where an extensive collection of fishes was made for the University. Mr. Snyder also made some interesting observations on the birds met on the trip and of which we hope to hear later.

On Oct. 2 Mr. Charles A. Keeler delivered an address before the Section of Ornithology of the Academy of Sciences entitled "A Popular Talk on Birds."

Ralph Arnold of Stanford University has recently completed the work of mapping the Black Mountain region for the U. S. Geological Survey.

J. F. Illingworth, formerly of Claremont, Cal. is enrolled at Stanford University and is incidentally doing some bird work.

Directory of Members of the COOPER ORNITHOLOGICAL CLUB.

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Zschokke, A J, Palo Alto

* * *

Another Cooper Club man has claimed a bride,—it being in this instance, Mr. Henry B. Kaeding, formerly of San Francisco, but now residing in Corea. On the steamer *Coptic* which left San Francisco Oct. 10 sailed Miss Mary C. Hubbard to join her fiancee, the wedding having been planned to take place upon her arrival in the Orient. Mr. Kaeding accepted the position of general assayer with a large mining corporation in Corea over a year ago, and the press of business prevented his return to California as originally planned, hence the romantic wedding. THE CONDOR and Club members generally, will join in congratulations and well wishes.

Mr. A. L. Bolton of Berkeley, a member of the Cooper Club has returned from an extended stay in the northern gold fields, and will once more be heard from in ornithological lines.

The Zoology Club of Stanford University has elected Joseph Grinnell as its president and M. P. Anderson as secretary.

VOLUME 3. NUMBER 1.

JANUARY-FEBRUARY, 1901.

THE CONDOR.

Cooper Ornithological Club. Santa Clara, California.

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Pacific Coast Avifauna No. 1:

BIRDS OF THE KOTZEBUE SOUND REGION ALASKA, BY JOS. GRINNELL.

This publication constitutes the first of a series of special papers to be issued by the Cooper Ornithological Club and is now ready for distribution. The paper deals with a region which has latterly become possessed of unusual interest from an ornithological standpoint, resulting from the increased activity of scientists within its limits. *Pacific Coast Avifauna No. 1* consists of four parts, Introduction, Field-Notes, Bibliography and Checklist; it contains 80 pages of text of the size of this magazine and is supplemented with a three page map.

The paper recites the author's experiences among the birds during a twelve month's stay in the Kotzebue Sound region, the biographies in many cases being extended and of great interest and value. Notes on the nidification and life-history of 113 species and sub-species are given in the Field-Notes, embracing such birds as the Short-billed Gull, Red Phalarope, Alaskan Pine Grosbeak, White-winged Crossbill, Alaskan Jay, Varied Thrush, Red-spotted Bluethroat and numerous other species of special interest. The publication reflects Mr. Grinnell's painstaking work and pleasing style of expression, and should find a place in every ornithological library.

Now On Sale. Price 75 Cents a Copy.

Order at once on the enclosed blank and make remittances payable to C. BARLOW, Santa Clara, Cal., Publisher for the Club.

THE CONDOR.

Bulletin of the Cooper Ornithological Club.

A Bi-Monthly Exponent of Californian Ornithology.

Vol. 3. No. 1. Santa Clara, Cal., January-February, 1901. $1.00 a Year.

Bird Notes From Tacoma Gulches

BY J. H. BOWLES.

THIS form of bird study is among the most difficult of any I have ever attempted, and a few words of description may not come amiss. These gulches or ravines were undoubtedly caused by glacial action, are often several miles long, and all run into Puget Sound. They vary from 80 to 100 feet in depth, have small trout brooks running through them, and are filled with underbrush and debris of all descriptions. In many places the bottoms are well wooded with fir and cedar.

The difficulties of thoroughly searching such places may easily be imagined, but they fade rapidly before the abundance of bird life to be found. A sketch of a trip taken May 9, 1898, will give a fairly typical day. First to strike the oological eye were the high, perpendicular clay walls, with here and there the nesting holes of the Rough-winged Swallow (*Stelgidopteryx serripennis*), and Belted Kingfisher (*Ceryle alcyon*), the former bird only digging a nest for itself when all burrows of the latter are tenanted. These nests are almost invariably inaccessible, as they vary in height from forty to seventy feet above one's reach.

While gazing at them with regretful longing, the stillness was suddenly broken by the beautiful, bell-like warble of the Western Winter Wren (*Anorthura hiemalis pacifica*)—to my mind one of the most charming singers of the northwest. Then I knew my work was cut out, for within half a mile must be his nest, which, together with its contents, would make a most welcome addition to my collection. I walked to the edge of the brook and, after traveling a short distance along it, the way was blocked by a giant fir that, in falling years before, had split in the middle. From deep in this split appeared suspicious-looking twigs, but past experience had taught me not to expect the real nest within a hundred yards of a singing Winter Wren. Nor was I mistaken this time, for it proved to be nothing more than a well-built "decoy," about which the bird made a very natural "bluff" of anxiety.

The tree being fully six feet in diameter and covered with vegetation of all kinds, my climb over it was accomplished with considerable noise, and on sliding down on the other side I was promptly greeted with an angry *buzz*. It proved to come from a female Rufous Hummingbird (*Selasphorus rufus*), and seldom have I seen such an atom of concentrated rage. A close inspection of the vicinity showed her to have good grounds for anger, as in my slide I had passed within a few inches of her nest with its set of two eggs. It was saddled against a dead hanging twig in the midst of the tangle. After making a background of newspapers I took a photograph, cleared away my debris and retired to watch her. She had cooled down considerably and it was but a short time before she flew above her nest, hovered over it for a second or two and then dropped into it like a stone. This I have found to be the invariable custom of the Hummers when going to the nest, and as nests are frequently found having one or both eggs broken, this habit appears to me to be a very possible cause.

Leaving her with her treasures I continued up the brook, finding two more decoy nests of the wrens in the roots of fallen trees, a nest of Rusty Song Sparrow (*Melospiza melodia guttata*) with four well-grown young and another with four fresh eggs. A female Lutescent Warbler (*Helminthophila c. lutescens*) assured me that her nest was close by, but she would not go to it and I could not find it myself. Then I noticed a most interesting trick of Steller's Jay (*Cyanocitta stelleri*). These birds do not nest in the gulches, but fly down into them in search of what food they happen to come across and as much mischief as a most fertile ingenuity can bring about. I watched one of these for some time, my attention being attracted to him by his squabbling with a squirrel, probably over a nut from the latter's store. But right for once prevailed and the jay, with a burst of harsh, laughing notes, flew to the lower branches of a patriarchal cedar. After enjoying his last joke for a short while, he seemed to have had enough of the ravine and followed the jays' time-honored custom of getting out of it. Being much too lazy to fly, he hopped to the branch above him and continued leisurely upward in this manner until reaching the very top. This brought him above the level of the upper edge of the gulch, to which he flew in search of further sport.

This was some 200 yards from where the wren was heard singing and I knew my chances of success in that direction should be reaching a focus. Consequently a half-uprooted fir tree some few yards further on, gave me a thrill of more than usual interest. The opening under the roots extended in about ten feet and was only three feet high at the entrance, so there was nothing for it but to imitate the serpent. The wren had left me long since and nothing stirred when I shook the roots, therefore my hopes were high, as these wrens are never seen near their eggs. After crawling in as far as possible, I turned over on my back and waited for my eyes to become accustomed to the darkness. As things gradually took shape, almost the first thing I saw was the much hoped-for ball of twigs and green moss directly over my head. It was wedged in among the earth and roots, and a feather protruding from the entrance told me that my search had reached a satisfactory end—the decoy nests are never lined. The set consisted of six partially incubated eggs, and only one more decoy was found, this being a short distance further on in a long-neglected placer mine.

Upon coming to a slope in the side of the gulch I decided to climb out, and had barely started upward when another Rufous Hummer flushed from her nest on a drooping fir bough. As I merely stopped long enough to note the two eggs and construction of the nest, the bird returned to it at once. This she did in the same manner as the first one, and with quite as much apparent desire to utterly destroy the contents of the nest.

My last find was made shortly before arriving at the top, at a very steep and bare place where I could barely climb even with the aid of an impromptu alpine-stock. Almost out of reach was a dead fir stump about three feet high, and from force of habit I hit it with my stick. As if shot from a gun, a Vigor's Wren (*Thryomanes bewicki spilurus*) went straight up into the air about thirty feet, and then darted into a small patch of brush near by. The nest was placed in a natural hollow in the stump and held six very handsome eggs. It was beautifully made, being composed of cedar bark with a lining of many different colored feathers. I was some time in taking this nest, for I removed the entire section of the stump in which it was placed, and the actions of the owners contrasted strongly with those of the Winter Wrens. The latter, as usual, never gave any sign that they were alive, but both male and female Vigor's Wrens protested for all their name implied. Their note was a harsh deep "chuck," far louder than I should ever credited to so small a bird.

But the male decided it was not worth so much trouble, and soon flew to the top of a bush where he sang until I left. Again I was surprised at the volume of sound, the note resembling that of *Anorthura h. pacifica* in a general way, but being many times louder and greatly lacking in delicacy of fiber. I listened for a full quarter hour, as he made very short intervals between songs, and then turned homeward, having completed one of my favorite trips among the birds.

* * *

Chipmunks.

The observations of Mr. Williams at Independence Lake as recorded in the Sept.-October CONDOR were a surprise to me, as I had never suspected the chipmunks of harming birds, nor did I think they were carnivorous, though I had been told that the larger one, Say's Chipmunk, would sometimes kill and eat the Large-eared Chipmunk, but having seen many cages of pets which contained both species dwelling together in peace, I doubted the carnivorous propensity of *T. sayi*. These are the species which are found at Independence Lake.

Scarcity of food may have been the cause of their exceptional (?) behavior at Independence Lake which, like other damp localities in the Sierras, at 7000 feet altitude, or approximately that, is subject to frequent summer frosts. The past summer was an unfruitful one in these mountains from about 6,500 feet upward. The sunflower, gooseberries, seeds of the lupines, acorn of the dwarf oak, in fact all seeds and berries, with slight exception, were destroyed by frost before they matured.

Birds are unaccountably scarce in the timber belt of the Sierras and also in most of the agricultural districts of California. My belief has been that birds which nest on the ground oftener succeed in rearing their young than those which build in bushes and trees. I have seen at least a hundred nests of the junco and can only remember one that was disturbed by bird or animal, the exception being a nest that contained four young which were killed by a gopher snake. The majority of these nests were between 4,000 and 5,000 feet altitude and were built in the forest where the smaller chipmunk is abundant, but below the range of Say's Chipmunk.

I think the tree squirrels (*S. fossor* and *S. hudsonius fremonti*), the former the large Grey Squirrel and the latter the Red Squirrel, destroy a great many nests and eggs in some localities. I hope the causes of bird scarcity in California will be ascertained and removed if possible. I think some are climatic.

L. BELDING.

Stockton, Cal.

* * *

Mr. William W. Price will conduct a party of boys and young men on a natural history and exploring trip to the Lower Colorado River from Yuma, Ariz., southward through Mexico to the Gulf of California. The party left Yuma Dec. 21 and are expected to return about Jan. 5. It is safe to assume that, with Mr. Price as their leader and guide, they will find the outing both profitable and immensely interesting.

We learn that W. Otto Emerson of Hayward, Cal., has been appointed a member of the A. O. U. Committee on Bird Protection for California. Mr. Emerson's active work in this line is well known, and the appointment is happily deserved.

Flathead Lake Findings

BY P. M. SILLOWAY, LEWISTON, MONT.

[Read before the Northern Division of the Cooper Orn. Club, Jan. 12, 1901]

HOW frequently it happens that after we have given up active quest for a certain desideratum, we chance upon it some fine day with startling abruptness! Thus it occurred that the indefinable element we ornithologists call Luck predominated largely in the taking of my first (and only) set of *Dendroica auduboni* (Towns.)., vulgarly known among A. O. U. associates as Audubon's Warbler. Upon my arrival at our camp at the northeastern corner of Flathead Lake, on June 14, the tops of the lofty pines and tamaracks were animate with the movements of this handsome warbler; and in watching the flitting visitants to a certain tree, I located a nest near the extremity of a horizontal branch, to which the parents were making trips so regularly that nothing but young birds in the nest could explain the cause of their activity. With a heavy heart I concluded that I had arrived too late to see my hopes end in fruition by taking several sets of eggs of this warbler, and that for this season at least I must be content with reading in THE CONDOR how Mr. Howard had taken them in Arizona, or how Messrs. Barlow and Carriger had found them in the Sierras.

Having left my irons at home, and having promised my wife that I should not make any venturesome climbs during my collecting trip, I paid little attention to the tops of the large pines in my daily outings, though now and then I cast covetous glances upward when any undue activity of the flitting birds or any unnatural accretion in the tufts of extended foliage arrested my sweeping examination of the surroundings. Thus I explored the region near our camp day after day, always led onward (and frequently upward) by a hope that some belated warbler might have a home in the top of one of the young firs, into which I could peep with heart beating joyfully in anticipation of a set of eggs snugly ensconced in a downy cot. Didn't Davie say that the nests of this species are situated at various heights, ranging all the way from three to thirty feet? Surely all the Flathead warblers were not nesting in the tops of the tall pines! And surely all the Flathead warblers had not concluded their nidification thus early in the season!

There is a most gracious promise, of most wonderful application, and I fancy how often the eager collector, as he further pursues his yet bootless quest, yields to the dreary monotone of his inward mentor, "seek and ye shall find", until all previous disappointments are effaced in the gratifying moment that he looks into the nest and reads in letters of rosy tinge, *fresh*. You see that at last I get to the point.

With varying fortune the days came and went, until the 27th of June dawned. I had ceased my yearning after the seemingly unattainable, and had got down to the quest of a pair of *Porzana carolina* (Linn.)., "O, what a fall was there, my countrymen!" Hearing the chick-like chirping of a pair of passing *Coccothraustes vespertinus montanus* (Ridgw.)—Fellows will understand this to mean the Western Evening Grosbeak—and seeing them hurrying rapidly overhead as if a nest might be the objective point, I dropped further operations against the Soras, and struck a line through the dense growth of slender willows fringing the lake, in hopes of chancing upon a nest of *Coccothraustes*. From sheer force of habit I scanned the willow canopy, and had scarcely entered the growth, when a suspicious-looking grayish mass in a fork of one of the stems caught my eye. Giving the trunk a half-hearted stroke with my gun-barrel, I was surprised to see a small bird flit downward and away among the willows, though I had presence of mind to catch her in the farther limit of the "twilight noon" of the swamp woods. Stooping to examine my prize, I realized that *Dendroica auduboni* stock was soaring skyward, and depositing the mortal remains of Mrs. auduboni in my collecting basket, I made haste to ascend a neighboring stem, as I feared the one holding the prize might bend under my weight and spill the contents of the nest before I reached it.

When about half way up to the nest, I had to strap the stem I was climbing to the one containing the nest, and thus with little difficulty I was enabled to reach the prize and gaze into its recesses. Five eggs! My trembling hand could barely transfer them one by one to the cotton of the collecting can, but at length I stood on terra firma below with my treasures safe and sound. In descending I measured the stem with a two-foot rule, and found the distance from the ground to be eighteen feet. The fork containing the nest was in a main stem, upright, a number of feet below the leaf-bearing part of the tree, so that the nest was exposed quite fairly to view.

The nest is figured in the accompanying illustration. It stands two and one-fourth inches in height, and averages three and one-fourth inches in diameter. The rim of the cavity averages two inches in diameter, and is somewhat smaller than the diameter of the space below. The depth of the cavity is a trifle more than an inch and one-half. The exterior of the nest is made of coarse materials, such as weed-stems, grasses, and bits of vegetable down. It has a nice lining of horsehair on soft

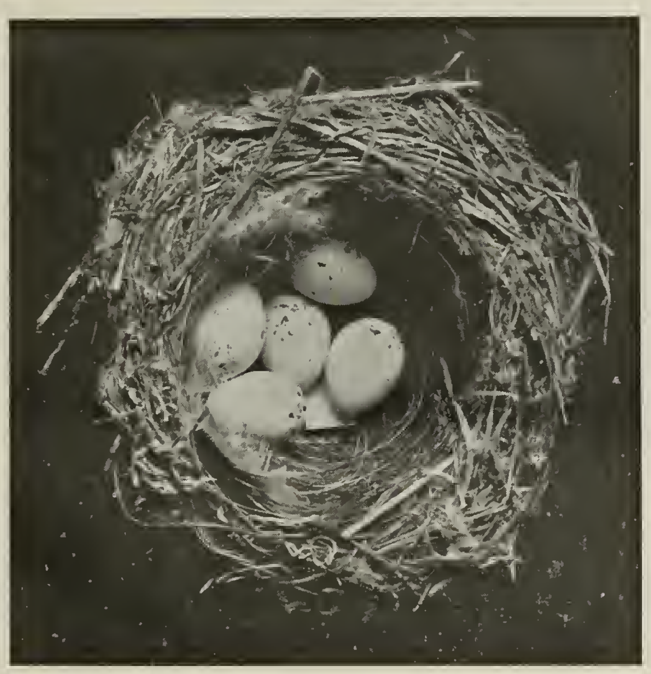

Photo by Prof. M. J. Elrod.

Nest and Eggs of Audubon's Warbler

every separate tree was closely scanned, but no other evidence of *Dendroica auduboni* was found in that locality; hence I averred that Luck was a predominating factor in the finding thus lengthily recorded.

Along the landward margin of the willow swamp mentioned in the foregoing description, there was a thick growth of bushes and small evergreen trees, consequent upon the lumberman's advent into the neighborhood. Between the swamp and the bushes, I managed to while away many a June day, and to pick up some finds which, though not important to the advanced collectors, were very interesting to one who was spending his first summer in Montana. How I pity those advanced collectors, who long ago lost all pleasure in the common friends of the woodland, and now find their only solace in a's, b's, c's, etc., or the oological findings of the far-off islands of the sea. But to resume:

It was along the bushy margin of the swamp-woods that I first had the pleasure of meeting *Empidonax wrightii* Baird, which advanced collectors will readily recognize as the cognomen of Wright's Flycatcher. I was prying around the clumps of maple sprouts alternating with the fir thickets, when a little flycatcher flitted from a nest in an upright crotch in the periphery of the clump. The nest was only five feet from the ground, and by standing on a prostrate log I could easily peep into the cozy structure. At a glance I knew that the four creamy white eggs were strange to me, and I began to look again for the

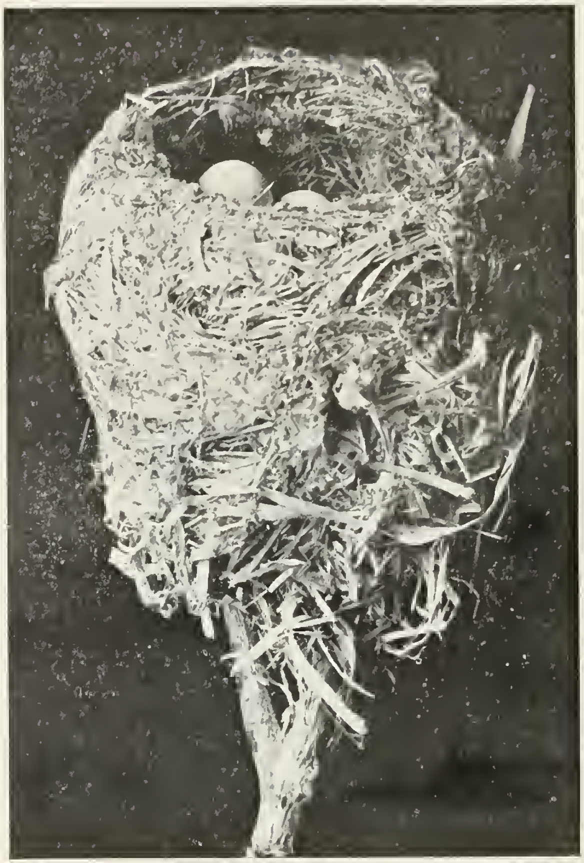

Photo by Prof. M. J. Elrod.

Nest of Empidonax wrightii.

feathers, the latter being worked into the walls so that their soft extremities project into the cavity and curl warmly along the upper portions of the wall. The eggs have a ground of grayish white color, marked chiefly at the larger end with specks and irregular dots of blackish and dark reddish brown, one or two having a suggestion of the wreath-like formation in the markings.

It is worth while to mention that during the next three days I searched the entire swamp woods extending between the mouth of Swan River and Flathead River, a space of nearly three miles, over which the willow growth averaged a width of three hundred yards, and it seemed to me that owner, but she had wisely disappeared. We collectors know how to wait, as well as to labor; and so I ensconsed myself in a convenient place and waited. Presently the owner appeared, uttering a somewhat harsh but subdued "quit," flipped her tail nervously to inform me that she was a flycatcher, and dodged behind an adjacent clump. However, at length I captured her (my Audubonian spirit prevents my saying that I shot her); nest and eggs were soon packed in my basket, and another finding recorded in my note-book.

This nest stands three inches in height, the exterior diameters averaging two and three-fourths inches. The rim of the cavity averages one and thirteen-sixteenths in diameter, the depth being one and three-fourths inches. The structure is made of gray vegetable fibers, such as soft strippings from weed-stems, with which are interwoven cottony vegetable materials and bits of gossamer. The lining is delicate grassy fibers, used sparingly, and small, downy feathers which project from the well. The illustration shows the position of the nest better than we can describe it.

It may not be amiss to say here that while my business in the Flathead region in July and August was to assist in biological work for the Montana State University, my purpose there in June was to pick up a few sets of eggs for my own little collection. You will therefore understand that when I became awake to what a treasure a common maple clump might contain, few of them escaped my earnest glance. The first nest of *E. wrightii* was taken on June 15; it was not until the 18th that I chanced upon my second nest. The locality was a high ridge east of the lake near our camp. I had wandered aimlessly onward and upward, allured by the clumps of maple that dotted the hillsides and intermediate valley. Clump after clump was examined; but at length I spied a nest that seemed promising. It was ten feet from the ground, in an upright crotch near the top of the clump. To reach it safely I had to strap together a bundle of the light sprouts. This nest contained five eggs, somewhat advanced in incubation. In structure and appearance, it is a counterpart of the one first described.

The collector can give little excuse for taking a series of eggs and nests of *Empidonax wrightii*, upon the ground of variation, as the eggs are practically all alike except deviations in size, and the nests look much alike exteriorly. I just wanted more eggs, I suppose, (you understand the feeling, Mr. Editor), so I kept scanning the maple clumps, and on June 20 I found my third nest. It was on the same ridge where I had taken the second one. This third nest was only four feet from the ground, situated as usual in an upright crotch of maple sprout. It stands two and one-half inches high, the interior dimensions being the same as those given for the first nest. There were three fresh eggs in this nest.

What, another nest? Yes, back in the margin of the swamp-woods. Four days of further search netted nothing in the way of flycatcher's eggs, though I managed to get fair returns for the time in other ways; but on June 25 I chanced upon my last nest of *Empidonax wrightii*, which contained four eggs in which incubation had well begun. It was eight feet from the ground, in a crotch in an oblique stem of a maple sprout. The nest stands three inches high, the cavity averaging two and one-eighth inches in diameter at the rim. This nest is somewhat different from the others in its large and shallow cavity, and in the amount of felted material used in the inner wall. All the nests of this flycatcher have a considerable amount of loose material at the bottom, as an exterior foundation.

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Theodore J. Hoover is spending the Christmas vacation with Dr. J. P. Smith among fossil beds near Independence, Cal. From force of habit, Mr. Hoover took a gun with him!

New Alaskan Birds *

RICHARD C. MCGREGOR.

Leucosticte kadiaka sp. nov.

Sp. Char.—Similar to *Leucosticte griseonucha* but with smaller bill and smaller, weaker feet and claws.

Type—♂ ad., No. 3048. McGregor Coll., Karluk, Kadiak Island, Alaska; March 14, 1897; collected by Cloudsley Rutter.

Habitat—Kadiak Island, Alaska.

Specimens at hand are in such worn plumage that wing and tail measurements are worthless. In spring birds from Karluk the bill is dark horn color, while in November examples it is yellow with a dark tip. Measurements in hundredths of an inch are here given for three males from Amaknak and four males from Kadiak.

	Exp. Culmen	Bill from nostril	Middle toe with claw
L. griseonucha.	.54	.42	.97
kadiaka.	.48	.38	.88

Melospiza sanaka sp. nov.

Sp. Char.—Similar to *Melospiza cinerea* but bill longer and more slender, middle toe with claw shorter.

Type—No. 3361. McGregor Coll., Sanak Island, Alaska; June 13, 1894; collected by C. Littlejohn. Exposed culmen, .61; bill from nostril, .48; middle toe with claw, 1.02.

Habitat.—Sanak and Popoff Islands, Alaska.

The Sanak birds at hand are all in worn spring plumage so that they cannot be compared with my fall birds from Dutch Harbor which are in fresh plumage. Mr. Chase Littlejohn kindly let me use his series of skins from Sanak.

The following table of measurements shows the amount and character of difference in size of the two forms.

MEASUREMENTS OF *Melospiza cinerea* AND *M. sanaka*

	Sanak		Amaknak	
Five examples of each.	Average	Extremes	Average	Extremes
Exp. culmen ♂	.60	.58-.63	.57	.54-.58
Exp. culmen ♀	.59	.57-.63	.56	.54-.60
Bill from nos. ♂	.48	.47-.49	.44	.44-.45
Bill from nos. ♀	.48	.46-.51	.45	.43-.47
Mid. toe with claw ♂	1.03	1.01-1.06	1.07	1.06-1.08

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* An author's edition of 100 copies was distributed Nov. 25, 1900.

Nesting Habits of the California Shrike

Lanius ludovicianus gambeli Ridgw.

BY WM. L. ATKINSON

THE California Shrike is an abundant resident in Santa Clara, Co., Cal. where it may be seen at almost any time by an observing person, perched upon a telegraph pole or the top of some tall tree where it may have a good view of the surrounding country. A grain field containing several large white-oak or live-oak trees is a favorite locality of this bird, and once a pair has selected a location of this kind, nothing short of death will cause them to leave it. A cypress or osage orange hedge is a favored spot for a nest as is also a scrub willow in a grain field or at the roadside.

Nest building is commenced as soon as the weather moderates in the spring —some years earlier than others. My record for my first set of shrikes' eggs for the past six years is as follows:

1895, Feb. 26, six fresh eggs.
1896, Mar. 19, six fresh eggs.
1897, Apl. 1, seven fresh eggs.
1898, Mar. 9, six fresh eggs.
1899, Apl. 10, six fresh eggs.
1900, Mar. 5, six fresh eggs.

The latest date at which I have taken eggs is June 17. I believe that when unmolested the shrike raises at least three broods in a season. If the nest is robbed the birds will immediately start another one, near to and sometimes right upon the site of the old nest and in a very short time it will contain a set of eggs.

In 1894 I took one set of seven eggs, two of six each, one of five and a small boy got another of four eggs,—all from a pair of shrikes which had selected an eighty-acre field near my residence for their home. This field contained four white oak trees and one live-oak, and when one nest was collected from them they would immediately repair to the next tree and build again. In this way twenty-eight eggs were taken from them, but undaunted they began again and in admiration for their perseverance I left them to build their *sixth* nest and hatch their eggs in peace. The next year they were on hand as usual and have ever since been yielding two or three sets yearly to swell the writer's collection.

The following is a fair record for one pair of birds for four years,—

1895, Feb. 26. Six fresh eggs.
  Mar. 27. Seven eggs. Incubation advanced.
  Apl. 27. Six eggs. Incubation begun.
1896, Mar. 19. Six eggs. Fresh.
  Apl. 3. Five eggs. Incubation begun.
  Apl. 18. Six eggs. Fresh.
  May 4. Five eggs. Incubation slight.
1897. Apl. 1. Seven fresh eggs.
1898. Mar. 16. Six fresh eggs.

A total of nine sets or fifty-four eggs.

I could have taken at least one or two more sets in both 1897 and 1898 had I desired to do so—and during the same length of time the "small boy" got several sets, so it can be easily seen that the shrike is in no danger of extermination. I know that these eggs were all laid by the same pair of birds because they nested within an eighth of a mile of my residence, so that I was in a position to watch them both in the winter and summer. The eggs of this bird all show a great resemblance, as I have before noted (CONDOR I, 29), which helps to prove the theory of individuality of eggs and also that they were all deposited by the same bird.

This year, 1900, I had quite an interesting experience with the shrike. On the 5th of March I was out collecting some specimens for skins, and while driving along a country road I noticed a suspicious looking "bunch" ten feet up in a small cypress tree at the roadside. Driving up to the fence I stood up in my buggy in time to see a shrike flit off her nest which contained five fresh eggs. As my destination was a small stream about a mile and a half farther down the road I left the nest until I should return. Imagine my surprise when I went to collect the set to find six eggs instead of five! The female had deposited an egg while I was gone.

Desiring some specimens of the shrike for skins, I shot the female as she flew from the nest. On the 22nd of March I again drove out to the stream mentioned above and as I passed the cypress tree I saw another nest upon the same spot. Climbing up to it I was rewarded with a nice set of six eggs. The male bird had secured another mate, they had built a nest and the female laid a set of six eggs in the the short space of seventeen days! The female is a very close sitter, especially if the eggs are incubated, in some cases allowing herself to be touched before leaving the nest.

The nest is a bulky structure placed in some convenient fork of a cypress or willow or in a thick bunch of twigs near the end of a drooping oak limb, at heights varying from five to thirty feet from the ground. It is composed of an outer layer of coarse twigs, with a filling of rope, straw, string, grasses or almost any soft substance available and lined with feathers, cotton or wool, usually feathers.

The eggs range from five to seven in number, although I have taken one set of eight, and they are usually of a dull grayish ground color, although I have found some specimens showing a decidedly greenish cast. They are spotted with light brown, olive and sometimes purple, which is in most specimens heaviest at the larger end. Sixteen specimens from five different sets in the writer's collection average .96x.71. The extremes are 1.06x.71, .86x.69 and .99x.75.

I might here record a set of albino shrike's eggs which were taken by a "small boy" near my home in 1894. Four of the seven eggs in the set were pure white, the other three being white, very sparsely spotted with a light shade of brown. I used every inducement to secure the set for my collection but they could be obtained for neither love nor money. This is the only case of albinism I have ever seen in a great many sets of shrikes' eggs examined, so I am led to believe it is quite a rare occurrence. I believe the period of incubation is fourteen days. The young are very interesting little creatures when they are just leaving the nest and it is said they make interesting pets if taken at this time and raised. Perhaps it would be well to relate an experiment along this line which I once witnessed, and which was a decided failure.

March 16th, 1900, while at work in an orchard I found two young birds just learning to fly, in a live oak tree and after an exciting chase, I succeeded in capturing them. Placing them in my lunch basket I started for home, the old birds meanwhile following me closely. Finally, the young birds became quiet in the basket and the old birds took their departure, after following me almost a mile. The same evening I took the youg birds to the residence of Mr. Barlow, thinking perhaps he would like to see them alive before I skinned them. Imagine my surprise to hear him say he thought he would raise them! As they were evidently hungry he brought out some oysters and proceeded to fill them up, whereupon they immediately turned up their toes and were in due time added to our collection.

The California Shrike is a bird of very unsavory reputation, and I think from all my observations that he no doubt deserves it. His favorite pastime seems to be in catching crickets, grasshoppers, lizards, small snakes and even small birds and impaling them upon a barbed wire fence or some sharp thorn. April 1, 1899, I found two Arkansas Goldfinches (*Astragalinus psaltria*) impaled side by side upon a barbed-wire fence, the barb in both instances being passed through the neck from side to side just at the base of the skull. [See *Oologist,* XVI. No. 5, p. 79.] I do not think they ever return to eat anything after they have once left it, and I have often thought I could detect in their actions a fiendish delight as they watched some unfortunate lizard or grasshopper squirming upon a thorn.

The note most usually heard from the shrike is a harsh call-note, but I have sometimes heard in the spring of the year a pretty little warble, with various trills, which is thought by some people to be uttered for the purpose of attracting small birds within reach, so that they may be captured. I do not agree with this theory but think their song is a sort of a "love-song," for I have watched them often while singing and never saw one try to capture a small bird or any insect at that time.

* * *

Cooper Club's President for 1901.

With the steady growth and expansion of the Cooper Ornithological Club, the executive officer of 1901 finds his position fraught with greater power and with greater possibilities than ever before, and the membership may well congratulate itself upon securing for presiding officer of the Club-at-Large one of its most popular and efficient members, Mr. Joseph Grinnell, whose likeness The Condor takes pleasure in presenting.

Mr. Grinnell occupies an unique position in assuming the presidency of the Cooper Club. The Club is represented by two Divisions,—the Northern and Southern,—which separate bodies were created merely to permit of each holding meetings in its respective location. The executive power of the Club-at-Large is vested in the Northern Division and from its membership has heretofore been chosen the president, until this year. Mr. Grinnell is temporarily a member of the Northern Division and during his year's residence at Palo Alto his ornithological work has been keenly recognized by his co-workers, which fact, coupled with his popularity, made it evident at the time of the annual nominations that he was the unanimous choice for the presidency of the Club.

Mr. Grinnell's ornithological work in Southern California is too well-known to require repetition, and his recent publication, "Birds of the Kotzebue Sound Region, Alaska", is an example of his careful and extended field-work. His interest in the Club and its advancement has been unfaltering, and through his ability and energy we shall expect to see still better work accomplished. Mr. Emerson has relinquished the office of president after three consecutive terms of faithful service, declining to be a nominee for 1901, and the Club must feel a satisfaction in bestowing the office into the present efficient hands.

* * *

An interesting article on the nesting habits of the Buff-breasted Flycatcher, by Richard D. Lusk, for which the illustration had been prepared is laid over until our next issue, owing to the late arrival of the text.

Two Races of the Red-breasted Sapsucker

BY JOSEPH GRINNELL

Sphyrapicus varius ruber (Gmelin) Ridgway.

Type—♂ ad., No. 3964, Coll. F. S. Daggett; Puyallup, Washington; November 22, 1895; Collected by Geo. G. Cantwell.

Description—Head, neck and breast, deep carmine, posteriorly beneath fading out, but on nape, abruptly defined. Concealed pectoral black patch, indicated by a deepening of the red of that area into maroon. Loral stripe including nasal tufts, white; eye narrowly encircled with black, from which a narrow black line extends forward along the upper margin of the white loral stripe; a small area of black around base of lower mandible. Median posterior lower surface, dingy primrose yellow; sides with black sagittate markings on a light olive ground; flanks irregularly barred with blackish on a yellowish white ground. Crissum whitish, with hastate dusky markings toward bases of feathers. Dorsal surface, wings and tail steely black, marked as follows: Longitudinally down middle of back from nape to rump, the feathers of this tract being basally black, then white to a variable extent, then a hastate black interval, and finally tipped with lemon yellow; the whole effect is of a double yellowish stripe down middle of back. Upper tail coverts medially white tinged with primrose yellow. Narrow soiled whitish edgings near tips of outer two tail feathers on each side. Inner webs of central pair of tail feathers with five abruptly defined rectangular white spots, these not meeting the shaft. Median and greater wing coverts broadly tipped with white, forming a conspicuous white stripe on closed wing. Wing quills with numerous small white spots on their inner and outer edges and narrowly white tipped.

Measurements of Type—Wing, 5.04; tail, 3.75; tarsus, .80; culmen, .99.

Habitat—Northwest coast region of North America, south in California through the Santa Cruz Mountains.

Sphyrapicus varius daggetti new subspecies.

Type—♂ ad., No. 1482 Coll. F. S. Daggett; Pasadena, California; January 25, 1893; Collected by F. S. Daggett.

Description—Head, neck and breast, crimson, inclining to burnt carmine in region of concealed pectoral black patch. Loral stripe, including nasal tufts, white; narrow patch from in front of, to below eye, black, this forming part of the upper border of the loral stripe. Small areas of black feathers at bases of rami of lower mandible. Median posterior lower surface, pale primrose yellow. Sides and flanks, dusky whitish, with numerous sagittate blackish markings. Feathers of crissum white, with central black patches. Dorsal surface, wings and tail, steely black, marked as follows: Feathers composing longitudinal double stripe down middle of back, extensively white; rump and upper tail coverts, principally white. Inner webs of central pair of tail feathers, white, enclosing three black spots. Median and greater wing coverts broadly tipped with white, forming a conspicuous white stripe on closed wing. Wing quills with numerous white spots on their inner and outer edges, and more extensively white-tipped.

Measurements of Type—Wing, 4.83; tail, 3.55; tarsus, .80; culmen, .96.

Habitat—Southern California and the west slope of the Sierra Nevada north at least to Amador County.

I have examined a number of skins of the *nuchalis* type, and others approaching *ruber* in almost every degree, and I am certain that there is a continuous intergradation geographically between the eastern *S. varius* and *ruber* of the Pacific Coast. The intermediates do not appear to be the result of "hybridization" and the case does not seem to me at all a parallel to that of *Colaptes auratus* and *C. cafer*. Therefore I see no reason why the Red-breasted Sapsucker is of more than subspecific rank.

The Red-breasted Sapsucker in its Pacific Coast range is represented by two races (= sub-races!) as above indicated. *Sphyrapicus varius ruber* is characterized by larger size, deeper reds and an invasion of yellow, and a minimum extent of white markings. *Sphyrapicus varius daggetti* is smaller, paler and with a maximum extent of white markings. *Dryobates villosus harrisii* and *D. v. hyloscopus* of corresponding habitats show a similar difference in respect to size and extent of white markings.

I take pleasure in naming this new woodpecker for my respected friend, Mr. F. S. Daggett.

**Picus ruber* GMELIN, Systema Naturae, Tom I 1788: p. 429.
Sphyropicus varius var. *ruber* RIDGWAY, American Journal of Sciences and Arts, 3rd Series, Volume V, 1873: p. 40.

Dichromatism in the Genus Carpodacus

RICHARD C. MCGREGOR.

[Read before the Northern Division of the Cooper Orn. Club.]

OCCASIONAL finches, in which yellow is present or even predominant over the red, must come to the notice of every field ornithologist of the west; in fact we may look for some yellow feathers in about one-half the males of this group. *Loxia*, *Pinicola* and probably other genera have a yellow phase of regular occurrence in the immature plumage. It is this dichromatism which led me to make a few remarks before the Club—not with the intention of reporting anything new but with the hope that some members might take an interest in what has interested me.

The following notes were made on specimens of *Carpodaci* in my collection and treat of the occurrence of yellow among the North American species. I am unfortunate in having no representatives of Mexican forms but these would doubtless show the same variations in plumage color.

Yellow feathers are rare in *Carpodacus purpureus californicus* and I have never seen them in *C. cassini*. Of the former race Mr. T. E. Slevin has two males in which a few yellow feathers occur on the breast. They were taken at Fairfax, California, in December. In the subgenus *Burrica*, including as it does the so-called house finches, the yellow phase is common and these plumages will now be described for each race examined.

Among the finches from the San Benito Islands *(C. mcgregori)*, I have never seen two alike. The colors range from bright crimson through orange into lemon yellow with all manner of variations resulting from combinations of these colors and their shades or tints. It is impossible to take any example and say it is the typical coloration.

The finch of Guadalupe Island (*C. amplus*) shows more stability in its coloration but even here we often find birds varying from the normal. Of seventeen males before me, nine, or over one-half, are more or less yellow. In two of these the rump, head, and breast are clear lemon yellow, in a third the feathers are about equally red and yellow, of a pale washed-out look. The remaining six have a few yellow feathers irregularly mixed with the crimson. The proportion of yellow birds which really occurs in probably less than the above figures would indicate as this series was selected, somewhat, with a view to getting the abnormal examples.

Among mainland birds (*C. m. obscurus*), great deviation from the crimson type is rarer, though even here it is surprising how many shades of color occur. In a series of over fifty males before me including skins from Colorado, nearly the whole length of California, and four from northern Lower California there are thirty-three in which more or less yellow occurs. However, four only are strikingly different from the normal, three being yellow with no red and one almost orange with very few yellow feathers. Twenty-nine possess from one or two to a dozen lemon colored feathers mixed among the red. Among the red examples, too, there is great variation. Many are a deep rose pink (young of the year?), others are crimson or near vermilion. Birds taken just before or during breeding season have an indescribable lustre which is only ascribable to intensification or addition of pigment.

Of six examples from Coronado and San Clemente Islands (*C. clementis*), one from each island has a few yellow feathers; another from Coronado is almost brick red.

Even in *C. ruberrimus* from San Jose del Cabo, we find cases of reversion, for although this form is 'very red' as its name indicates, there are occasional specimens with yellow feathers. I have managed to get six of these. Two are in immature plumage, one shows an inclination to orange, and three have yellow in patches.

Pains have been taken to make this list in some detail in order to show how frequent is the tendency to yellow; so frequent is it that we are hardly justified in calling it an abnormal condition. The hypothesis that yellow is a more primitive color than red finds additional evidence in another genus, *Cyanospiza*. A spring male of *C. ciris* taken in Georgia has one yellow feather in its breast and five in its throat. Another male of this species shows yellow on the flank.[1]

That these facts point to an ancestral bird of yellow plumage seems most reasonable to answer a question as to why so many birds are off color.

Mr. Charles A. Keeler has suggested that yellow is the more primitive color and red an intensification of the same pigment, although he gives no experimental data to support his opinion. So high an authority as Dr. R. W. Shufeldt wrote me, October 10, 1899, in regard to this subject: "I am inclined to agree with Mr. Keeler that *yellow* birds preceded *red* ones in the history of the group *in time*, and thus viewed, red may be but an intensification of the former color." Mr. J. Armory Jefferies says: "Red feathers as those of the Flamingo, Cardinal Bird, and the like, are so colored by a red pigment similar to the yellow one."[2]

Keeler[3] has called attention also to the fact that the House Finch when kept in captivity changes from red to yellow, and that [4]"many birds appear to become more brilliant in color as the breeding season approaches without either a moult or the wearing away of the tips of the feathers." This last point is indicated by the series of finches in my collection. He says:[5] "It is difficult to say whether the change in color of the caged house finch (*Carpodacus mexicanus frontalis*) from red to yellow is due principally to a change in food, or to the confinement and general deterioration of the system from captivity. Food nevertheless, plays some part in this, as well as in many changes in the color of birds in the wild state, which, with the present lack of experimental data, are far too complex even to be surmised."[6]

I have quoted at length from Keeler in order to emphasize the richness of material ready to our hand. Here is an excellent chance for interesting and valuable experimentation. A study of the color change in our commonest bird would give big returns for the time invested. For such work, however, one should be permanently located where continuous out-of-door work might be done for a year or more.

One more extract from Keeler's work may not be out of place. "The most significant interrelation of colors, however, and one which I believe to be of wide application in the explanation of bird colors, is that between yellow and red. Whether these two colors are produced by the same or a different pigment I am unable to say; but, however this may be, there is a high degree of probability that the red is simply an intensification of the yellow. There is much to show that yellow is a more primitive stage than red, and that the latter has always or nearly always been developed from the former."[7]

It is to be hoped that someone who has time and facilities will feel enough interest in this matter to make at least a study of the moult and of the effect of food supply, varied as to quantity and and quality.

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[1] NOTE—Since writing the above I have examined a beautiful series of Hawaiian Island species, *Vestiaria coccinea*, in the collection of Mr. H. W. Henshaw of Hilo. In the adult plumage this bird is entirely red. The young, however, are yellow and Mr. Henshaw's lot shows the gradual change from yellow to red.

[2] Bull. Nut. Ornith. Club. VII. P. 131.

[3] Evolution of Colors of N. A. Land Bds. P 156.

[4] l. c. p. 136.

[5] l. c. p. 229.

[6] See on this subject, Birtwell, *Auk* XVI. p. 313.

[7] l. c. p. 151.

Echoes from the Field.

Stragglers in Southern California. The prediction of a cold winter is being verified in Southern California by an unusually large migration of water birds this fall, among them being many stragglers not often seen, and a few not heretofore recorded. Among the latter I have had brought to me for identification, a specimen of Ross's Snow Goose, (*Chen rossii*), shot at the Bolsa Chica Club grounds near Newport, Cal., by Dr. A. Fenyes, Nov. 10, 1900. It was flying in company with an American White-fronted Goose which was also secured, no other geese being in the vicinity. On Nov. 28 Mr. E. R. Hull brought me a pair of Old-squaws (*Harelda hyemalis*) shot at the same place. They were flying together over a blind when one was dropped, the other circling back to meet the same fate. The Ross's Snow Goose and the Old-squaw are both additions to Mr. Grinnell's 'List of Birds of the Pacific Slope of Los Angeles Co., Cal'., which also includes the western part of Orange Co. A flock of about 125 American White Pelicans flew over the city Nov. 25, one being secured at long-range by a high-power rifle. Of recent years only flocks of a dozen or so have been noted. All of the birds secured and noted above have found their way into my collection.

Frank S. Daggett, Pasadena, Cal. Nov. 28, 1900.

The Alaskan Yellow Warbler in California. Three specimens of *Dendroica æstiva rubiginosa* are recorded by Oberholser (*Auk* XIV, Jan. 1897, p. 78) as taken by Mearns at Mountain Spring, San Diego County, May 11, 1894. Mr. W. O. Emerson has recently sent me three skins, undoubtedly referable to *rubiginosa*, taken by him at Haywards, October 4 and 7, 1898, and Sept. 14, 1900. These are readily distinguishable from fall skins of *Dendroica æstiva morcomi*, the usual Yellow Warbler of California, by larger size, darker dorsal surface, and a well-marked buffy tinge on the under parts. The Alaskan Yellow Warbler may therefore be looked for during the spring and fall migrations at about the above dates.

Joseph Grinnell, Palo Alto, Cal.

Further Tape Worm Observations. It seems peculiar that more birds have not been discovered to be "free boarding-houses" for tape-worms. Mr. Belding's article in the July-August (1900) Condor surprised me, inasmuch as I had never considered tape-worms of unusual rarity in birds, having found them in quite a number of species, as follows:—*Lophortyx californicus.*—About three years ago while hunting in Monterey Co., I examined a great many quail, and at least one-third of them had tape worms from 2½ to 4 inches long. The birds were all full-grown and the parasite existed in the intestines. *Buteo borealis calurus.*—In October, 1897 I examined a Redtail which had a tape-worm in the intestines. It was about eight or ten inches long. *Zenaidura macroura.*—In July, 1900 I killed a female Mourning Dove which had a very long tape-worm in the intestines. She was extremely emaciated and had an egg in the oviduct almost ready for extrusion. The worm was wound around and around and the intestines plainly showed the hermaphrodite as it sqirmed about in them. *Erismatura rubida.*—While at Morro I removed the intestines of several "wiretails" which contained tape-worms. The worms were about two feet long and the birds were nearly all very thin. *Spatula clypeata* and *Dafila acuta.*—Killed one Shoveller and one "sprig", each showing a tape-worm. Both birds were much emaciated. *Melanerpes f. bairdi.*—In 1897 and 1898 I killed several of these woodpeckers with tape-worms in their intestines. Will collectors kindly attempt to add to this list? Tape-worms may be much more common in birds than we suspect, and careful dissection may result in discoveries we do not expect. Chas. S. Thompson, Paso Robles, Cal.

Two Interesting Stragglers for Marin Co. Cal. *Coccothraustes v. montanus.* While driving through our county-road gate about ten o'clock on the morning of Nov. 20, 1900, my attention was attracted by a small flock of strange birds in the top of an ash tree opposite. They were feeding upon the buds and were not in plain view, yet the white bands on the wings at once called to mind the Western Evening Grosbeak. It seemed impossible that this identification could be correct, as this bird is a very rare visitant to this county, two or three only having been reported as seen in years past, one specimen sent me from Olema and now in our collection, and one seen by me on July 15, 1900 while I was deer-hunting. Leaving my companion to watch the flock I drove back to the house about half a mile distant, after a gun, and upon returning found the flock still in the immediate neighborhood, and consisting of ten or twelve birds. Three were secured, one of which was a male, apparently upon dissection a bird of the year; one an adult female and the third a female bird of the year. This last was exceedingly fat, while the first two were thin.

Nucifraga columbiana. It is a pleasure to be able to mention the capture of a bird never before recorded from this county, and as far as I know, not suspected of ever having been even a straggling visitor. On the 20th of November, 1900, a box was sent me from Point Reyes station in this county, containing besides one specimen each of *Porzana jamaicensis* and *Porzana noveboracensis*, an immature female Clarke's Nutcracker to which was attached a note from the donor asking what manner of bird this might be. I immediately sent a note of thanks for the specimens and enclosed a list of questions concerning the capture, for the donor to answer. His reply contained the statements that the Clarke's Nutcracker was shot in a pine tree on the top of a ridge on Point Reyes proper, on the south-west side of Tomales Bay, Marin Co., Cal. by himself on Nov. 19; that this was the only one seen at the time, but that he had seen one about a month before in the same place, which he thought was the same individual as the one shot, and that one was seen about a mile from the spot the day before the capture by a member of the Country Club. This he also believes to be the same individual, but premises to keep a sharp lookout in order to verify his supposition. This party is a hunter of great experience and naturally of an observing nature, yet he states that during all the years in which he has hunted, and at times been game-keeper in this county, he has never before seen a bird of this species except as above mentioned. This specimen was much emaciated, as if it had been a difficult matter for it to find proper food in this region, though the locality where it was shot is partially covered with a species of nut pine which would seem to be adapted to the bird's needs, and yet which grows in no other part of the county.

JOSEPH MAILLARD, San Geronimo, Marin Co., Cal.

Two Albinos from San Mateo Co., Cal. I have recently added two more albinos to my collection; one, a "white quail" (*Lophortyx californicus vallicolus*), a male, and the exact counterpart of the bird described by Mr. McGregor in a recent number of THE CONDOR. The other is a "white blackbird" (*Agelaius gubernator californicus*) with the exception of about half a dozen feathers on the breast and the same number between the shoulders on the back. The body is *pure* white, the top of the head is normal, the wings each contain about six or eight white feathers; the feathers on one side of the tail were shot away, those remaining being black. The bird has red shoulders but they are much paler than normal, and the color seems to have "run" across the breast and throat, giving these parts a rosy hue. This is the most interesting albino I have ever seen, it having been presented to me by Mr. Chas. Nichols of Pescadero, at which place it was shot. The quail was taken here, within about three miles of the place at which the one recorded by Mr. McGregor was captured. Both albinos are in my collection.

Chase Littlejohn, Redwood City, Cal.

Notes from Los Angeles Co., Cal. *Uria troile californica.* On Nov. 3, 1900 in a box of birds in the flesh, sent me by Mr. Lee Chambers from Santa Monica, I found a California Murre ♀. The bird had been found dying on the beach and was in a greatly emaciated condition. I believe that this is an addition to our county list as I can find no record of its occurrence here.

Coccothraustes v. montanus. On Oct. 21, 1900 I saw an Evening Grosbeak in the Arroyo Seco Canyon, but failed to secure it. On Dec. 7 on Mt. Wilson I heard the loud call note of one, but did not even see the bird. On Dec. 13 I heard the same note in the wash issuing from the Arroyo Seco Canyon, and was fortunate enough to secure the bird, an adult female.

Junco hyemalis. I shot a male Slate-colored Junco on Mt. Wilson, Dec. 6, 1900. Another, also a male, was seen the day before; both were observed in flocks of *J. h. thurberi*

Helminthophila celata. Three warblers that I have shot at Los Angeles (♂ Sept. 17, 1900. ♀ Oct. 30, 1899; ♀ Oct. 8, 1896) have been identified by Mr. Ridgway as belonging to this species. I have seen specimens of this bird every fall in the vicinity of Los Angeles, usually in company with *H. c. lutescens*, from which its grayish head renders it readily distinguishable.

Ammodramus sandwichensis bryanti, An *Ammodramus* shot by me at San Pedro Dec. 10, 1899, has been identified as Bryant's Marsh Sparrow by Mr. Ridgway. I have one or two others taken about the same time, apparently similar, so it may be found to be of regular occurrence here in the winter, though not recorded before.

H. S. Swarth, Los Angeles, Cal.

Notes from San Luis Obispo Co., Cal. While at Morro on the San Luis Obispo coast I discovered three sets of Snowy Plover's (*Ægialitis nivosa*) eggs on August 1, two sets being of three and one of two eggs. All were heavily incubated at this date and would have hatched in a day or two. The eggs were laid on the sand above high-water mark in slight hollows.

During April, 1900, I had the good fortune to record Cabanis' Woodpecker (*Dryobates v. hyloscopus*) for this county by taking two sets of eggs, 1/3 and 1/4. One of the nests which I found was peculiar in that it had *two* entrances, one about five inches below the other and to one side, but each entrance seemed equally used. In 1899 I obtained a set of *D. nuttalli* from the same tree, a dead cottonwood. This addition to the list now gives the upper Salinas valley six breeding species of *Picidæ*.

While at Morro, Nov. 25, 1900 I saw two Bald Eagles. One flew away but the other circled about and finally pounced upon a White-winged Scoter which it carried up the beach and started to devour. At our approach it dropped the bird, which waddled toward the water and swam away apparently unharmed. On Nov. 24 I captured three Scoters alive. They were far up on the beach and apparently were unable to fly from a "ground start". All captured were birds of the year and fully feathered.

Chas. S. Thompson, Paso Robles, Cal.

Notes on the Dwarf Hermit Thrush and Other Notes. On the 11th of December, 1900 I witnessed a rather amusing, yet interesting performance by watching a Dwarf Hermit Thrush (*Hylocichla aonalaschkæ*) securing his dinner. Being confined to the house by illness, I was looking out of a window into our garden for something in the bird line, when I noticed a thrush on the ground under an English walnut tree. The ground was covered with leaves and the bird would hop up to one of them, nervously jerking his tail and occasionally "flirting" his wings, and selecting a leaf he would suddenly grasp it in his beak and throw it quickly out of his way, and at once make a grab for the angle-worms underneath, sometimes almost falling over backward in his efforts to draw them out of the ground. I watched him for sometime and saw him throw some of the leaves at least fifteen inches. He was very successful, securing one or more worms from beneath every leaf he turned over, and I should like to know by what faculty he could determine beneath which leaves the worms were hidden?

On the 6th of October, 1900 I shot three specimens of the Willow Goldfinch from a flock of perhaps 100 birds. One of them, a young male, shows a rather odd coloration on the crown, where occurs a patch of pure white as large as a dime. Otherwise the plumage is normal.

August 25, 1900 I noticed a Roadrunner on one of the principal residence streets of Santa Clara. After "pacing" down the street a short distance it took a short cut through a fence into a flower garden where it was lost sight of. This was rather an unexpected visitor, but imagine my surprise one morning in November to see an American Coot calmly walking down the street in front of me. I followed closely for over 100 yards and although the bird did not seem to be injured, it acted as though thoroughly "lost". The nearest water where the birds are found is three miles away. Wm. L. Atkinson, Santa Clara, Cal.

Western Evening Grosbeak at Hayward, Cal. The early morning of December 29, 1900, brought in a new record for this part of Alameda County (Haywards), if not for the county at large, no other records as yet having been made of the Western Evening Grosbeak, (*Coccothraustes v. montanus*).

The birds' loud, whistling notes first attracted my attention, as they flew into an almond tree, seeming to rest from a long flight. Some twenty birds were in the flock and only one was shot before they were off, calling as they flew. The one collected proved to be a female in the winter plumage, of grayish color, showing a few yellowish-green feathers in one side of the neck. The crop was full of willow buds, showing that they had lately fed, no doubt among the creek willows below the orchard.

This form of the Evening Grosbeak is found commonly every winter through the Santa Cruz Mountains of the coast range, across the bay west of Haywards. I found them common among the pines at Monterey, Cal., in the latter part of November, 1896, particularly in the early morning, or at day-break.

W. Otto Emerson, Haywards, Cal., Jan. 1, 1901.

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Anent an Innovation.

On another page will be found a 'snap-shot' of Dr. C. Hart Merriam. Believing that even the more staid members of our ornithological circle may enjoy seeing some of our prominent ornithologists in moments of relaxation, *Squib* has ventured to inaugurate this series. So many persons are on their good behavior at the photographer's, that we ordinarily see the 'exception' rather than the 'rule'. The original snap-shots being too valuable to trust with the engraver, this series will appear redrawn with slight modifications. And lest some poor man should take us too seriously we beg to assure the world that we "josh only our friends".

"Squib."

"Pied Pipers of Santa Barbara" by Martinetta Kinsell, in October *Land of Sunshine*, is a good example of an extreme type of popular ornithology. It is a well written article, but of a gelatinous consistency that affords little mental pabulum. The germ of truth is about as elusive as a cork inside of a bottle. Perhaps it is not a serious attempt; we sincerely hope not. W. K. F.

The *Western Ornithologist*, whose promising career confined itself to three issues, has we regret to say, sought a resting-place in the journalistic graveyard. Thus many creditable and deserving journals are proving steadily the futility of the 50-cent "bird magazine."

The leading feature of December *Bird-Lore* is a popular article on photographing White-tailed Ptarmigan (*Lagopus leucurus*) in their native haunts, illustrated by six superb photographs of the ptarmigan in summer and winter plumage by the author, Mr. E. R. Warren. The photographs are certainly among the most notable published in ornithological magazines during the year.

Record of Alaskan Birds

IN THE

COLLECTION OF THE LELAND STANFORD JUNIOR UNIVERSITY.

BY JOSEPH GRINNELL.

The Zoological Museum of the Leland Stanford Junior University contains several small collections of birds taken at various times in the western part of Alaska, and these I believe afford data of enough value to warrant the present paper. Dr. C. H. Gilbert of the Zoological Department of the University has kindly given me permission to work over the material, and has also aided me with pertinent suggestions.

The Alaskan bird skins in the Museum number nearly two hundred, and were taken in the following localities: Pribilof Islands (both St. George and St. Paul), Amagnak Island, Belkoosky Bay, Unga Island, Kadiak Island and Prince William Sound. I have thought it better to record the birds in a separate list for each locality. Unfortunately there are no field-notes accompanying the specimens, so that the annotations are chiefly of a technical nature.

I have made use of the collection of the California Academy of Sciences in comparing specimens, as well as my own series of Alaskan birds.

PRIBILOF ISLANDS.

Twenty-one species are represented in the collection from this group of islands. They were all taken by Snodgrass (R. E.) and Greeley, (A. W.) between July 25 and September 4, 1897. Two of these species (*Totanus melanoleucus* and *Saxicola œnanthe*) are new to the list of birds known from the Pribolofs. The exhaustive paper by William Palmer on "Avifauna of the Pribilof Islands,"* enumerates sixty-nine species of authentic occurrence. One other has since been recorded †(*Tringa acuminata*). The present additions probably come under the head of casual or irregular visitants, and bring the total list of birds known from this group of islands up to seventy-two species.

1. *Lunda cirrhata* Pall. Tufted Puffin.
St George Island. ♂, July 26; St. Paul Island, ♂ ♀, September 1.

2. *Fratercula corniculata* (Naum.). Horned Puffin.
St. Paul Island, ♂ ♂ ♀, August 22, September 1 and 4.

3. *Cyclorrhynchus psittaculus* (Pall.). Paroquet Auklet.
St. George Island, ♂ ♂ ♀, July 26.

4. *Simorhynchus cristatellus* (Pall.). Crested Auklet.
St. George Island, ♂ ♀ ♀, July 26.

5. *Simorhynchus pusillus* (Pall.). Least Auklet.
St. George Island, ♂ ♂ ♀, July 26; St, Paul Island, ♀, August 21.

6. *Uria lomvia arra* (Pall.). Pallas's Murre.
St. George Island, ♀, July 25,

7. *Rissa brevirostris* (Bruch). Red-legged Kittiwake.
St. George Island, ♂ ♀, July 26.

8. *Larus glaucescens* Naum. Glaucous-winged Gull.
St. Paul Island, ♀ im., September 4.

9. *Phalacrocorax urile* (Gmel.). Red-faced Cormorant.
St. Paul Island, ♂ ♂, July 31; ♂, September 2,

10. *Harelda hyemalis* (Linn.). Old-squaw.
St. Paul Island, August 17, two downy young evidently not more than two days old. This seems to indicate an unusually late nesting date.

11. *Crymophilus fulicarius* (Linn.). Red Phalarope.
St. Paul Island, ♂, August 17; ♀, August 31.

12. *Phalaropus lobatus* (Linn.). Northern Phalarope.
St. Paul Island, ♀, August 31.

13. *Tringa ptilocnemis* Coues. Pribilof Sandpiper.
St. George and St. Paul Islands, eight specimens, August 17–25.

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*The Fur-Seals and Fur-Seal Islands of the North Pacific. Part 3. Washington: 1899. p. 355.

†N. Am. Fauna, No. 19. Birds of the Yukon Region, etc By Dr. L. B. Bishop, October, 1900, p. 66.

14. *Tringa acuminata* (Horsf.). Sharp-tailed Sandpiper.

St. Paul Lagoon, ♂ (No. 3539 Coll. L. S. J. U.), August 17. This specimen is apparently in first plumage. This is the second record for the Pribilofs.

15. *Totanus melanoleucus* (Gmel.). Greater Yellow-legs.

Kamenista Lake, St. Paul Island, ♂ ad. (No. 3543 Coll. L. S. J. U.), August 17. This is the first recorded instance for the Pribilofs, and, as far as I know, the first Alaskan record west of Sitka where several specimens were secured by Bischoff.[*]

16. *Heteractitis incanus* (Gmel.). Wandering Tatler.

St. George and St. Paul Islands, four specimens, August 22–31.

17. *Arenaria interpres* (Linn.). Turnstone.

St. Paul Island, ♀ im., August 17.

18. *Leucosticte tephrocotis griseonucha* (Brandt). Aleutian Leucosticte.

St. George Island, ♂ ♀ juv. ♀, July 25. Judging from the material at hand I see no reason for considering *griseonucha* a distinct species. (See under KADIAK ISLAND).

19. *Passerina nivalis townsendi* (Ridgw.). Pribilof Snowflake.

St. George Island, two juveniles, July 25; St. Paul Island, juv., August 29.

20. *Calcarius lapponicus alascensis* Ridgw. Alaskan Longspur.

St. George and St. Paul Islands, 9 specimens, July 25—August 29. No. 3482 (Coll. L. S. J. U.) is a juvenile about half fledged, taken on August 20, which is notably late for so young a bird.

21. *Saxicola œnanthe* (Linn.). Wheatear.

An immature male (No. 3486, Coll. L. S. J. U.) taken on St. Paul Island August 29, forms the first record for the Pribilofs, and fills in another gap in the known range of this remarkably wide-spread species.

AMAGNAK ISLAND.

This small island at Dutch Harbor, Unalaska, was visited by Snodgrass (R. E.) and Greeley (A. W.) in September, 1897, and four species were taken as follows:

1. *Calcarius lapponicus alascensis* Ridgw. Alaskan Longspur.

Adult ♀, Sept. 15.

2. *Ammodramus sandwichensis* (Gmel.). Sandwich Sparrow.

Five specimens, September 15–17.

3. *Melospiza melodia cinerea* (Gmel.). Aleutian Song Sparrow.

Three specimens, September 17. Robert Ridgway has recently described[‡] two new Alaskan races of the Song Sparrow practically completing the chain of forms connecting *melodia* of eastern North America with *insignis* of Kadiak Island. Accordingly he reduces the latter to the rank of a subspecies. *Cinerea* is very slightly different from *insignis*, and moreover is known to inhabit the Aliaska Peninsula so that geographical continuity with Ridgway's *kenaiensis* is probable. Therefore according to the present trend of opinion in regard to similarly related forms, *cinerea*, too, should be considered a subspecies, as above.

4. *Anorthura alascensis* (Baird). Alaskan Wren.

♂ juv., September 17.

BELKOVSKY BAY.

This bay on the southern side of the Aliaska Peninsula was visited by Snodgrass (R. E.) and Greeley (A. W.) on July 22, 1897, and the following species were collected.

1. *Tringa minutilla* Vieill. Least Sandpiper.

♂ ♀ both in juvenile plumage, but fully fledged; probably migrants.

2. *Corvus corax principalis* Ridgw. Northern Raven.

♂ adult

3. *Passerina nivalis* (Linn.). Snowflake.

♂ adult (No. 3481 L. S. J. U.); Measurements: wing 4.27, tail 2.80, culmen .44. In the size of the bill this specimen approaches *townsendi*. Several skins which I have examined from western Alaska present larger measurements, especially of the bill, than do eastern specimens. In other words, they show a decided inclination toward the extreme as represented by *townsendi*, and I see no reason why *townsendi* should rank as a species, as proposed by Palmer in "The Avifauna of the Pribilofs" (l. c.). Notice also the measurements of the Kadiak specimens given beyond.

---

[*] Dall (W. H) and Bannister (H, M.). List of the Birds of Alaska, with Biographical Notes. Transactions of the Chicago Academy of Sciences. Vol. I, Part II. Chicago: 1869. p. 292.

[‡] New Species, etc., of American Birds.—Fringillidæ. Auk, Jan., XVI, 1899, p. 36. And *ibid.*, XVII, 1900, p. 2

4. *Ammodramus sandwichensis* (Gmel.). Sandwich Sparrow.

UNGA ISLAND.

But three specimens are from this island, taken by Snodgrass (R. E.) and Greeley (A. W.) in July, 1897.

1. *Lagopus lagopus* (Linn.). Willow Ptarmigan.
 ♀ ad., July 21.
2. *Zonotrichia coronata* (Pall.). Golden-crowned Sparrow.
 ♂ ad., July 22.
3. *Passerella iliaca unalaschcensis* (Gmel.). Unalaska Sparrow.
 ♀ ad., July 21.

KADIAK ISLAND.

Nineteen species are in the collection from this Island taken principally by Cloudsley Rutter during the winter of 1896–97. A few skins were obtained by A. W. Greeley in July, 1897. This collection is of special interest as affording a new subspecies.

1. *Fulmarus glacialis glupischa* Stejn. Pacific Fulmar.
 Karluk, ♂ ad., (dark phase), July 20.
2. *Tringa couesi* (Ridgw.). Aleutian Sandpiper.
 ♂, Nov. 15; ♀ ♀ April 3.
3. *Lagopus lagopus* (Linn.). Willow Ptarmigan.
 Six specimens, Dec., Jan. and Feb.
4. *Lagopus rupestris* (Gmel.). Rock Ptarmigan.
 Karluk, adult in nearly complete summer plumage. (No date).
5. *Haliæetus leucocephalus alascanus* Towns. Northern Bald Eagle.
 Karluk, two specimens.
6. *Pica pica hudsonica* (Sab.). American Magpie.
 Karluk. six specimens, Oct.—Dec. "Very common; feeds on dead fish" (Note on label). The bills of these birds are slightly larger than in specimens of the same species from Nevada; otherwise I see no difference.
7. *Corvus corax principalis* Rigdw. Northern Raven.
 Two specimens, Dec. 12 and 27.
8. *Pinicola enucleator flammula* (Homeyer). Kadiak Pine Grosbeak.
 ♀, Jan. 22. Measurements—wing 4.28, tail 3.74, culmen .57.
9. *Leucosticte tephrocotis kadiaka* (McGregor).* Kadiak Leucosticte.
 Five leucostictes are in the collection from Kadiak Island. Four are in winter plumage, while one, No. 3942, Coll. L. S. J. U., taken at Kadiak, July 19, 1897, is a breeding bird, thus indicating that the species is resident on this Island. Specimens at hand indicate an almost complete gradation between *Leucosticte tephrocotis* of the Sierra Nevada and *griseonucha* of the Aleutian and Pribilof Islands. Such being the case, then the latter form is a subspecies of *tephrocotis* as long ago contended (*L. tephrocotis* var. *griseinucha* COUES, Key, 1872, p. 130.) I hope to further discuss the relationships of these forms as soon as some expected material arrives from the north.
10. *Acanthis linaria* (Linn.). Redpoll.
 ♀, Nov. 22; ♂ ♀, March 8.
11. *Passerina nivalis* (Linn.). Snowflake.
 One specimen (No. 3767, Coll. L. S. J. U.), Feb. 28, Sex (?). Measurements—wing 4.50, tail 3.00, culmen .46. This bird is still closer in size to *townsendi* than the one from Belkovsky Bay.
12. *Ammodramus sandwichensis xanthophrys* nobis. Kadiak Savanna Sparrow.

TYPE—♀ ad., No. 3476, Coll. L. S. J. U.; St. Paul, Kadiak Island, Alaska; July 18, 1897; Collected by Greeley (A. W.) and Snodgrass (R. E.).

DESCRIPTION—Lower parts white; sides washed palely with tawny; feathers of breast, sides and flanks with cuneate or linear shaft-streaks. Edge of wing, pale yellow. Superciliary stripe canary yellow. Submaler and rictal stripes sooty, edged with tawny. Malar patch and sides of neck suffused with pale buff. Median crown stripe, whitish; otherwise, whole upper parts broadly streaked with sooty, each feather being centrally black, then tawny, and finally edged with grayish. The hind-neck, palest; middle of the back, most heavily marked. The tawny color predominates over the gray, giving the whole bird a decidedly "rusty" appearance.

Three specimens of this race are in the collection from Kadiak. As shown in the following table of measurements the proportions and size of the bill are almost exactly between those of *A. sandwichensis* and *A. s. alaudinus*. The general tone of the upper parts is quite different from either, showing a predominance of tawny. In this brownness of coloration *xanthrophrys* resembles *A. s. savanna*, but the superciliary stripe of the former is very bright yellow and the size of the bird is larger. No. 3638, taken at Karluk, but without date, is almost exactly like the type. But No. 3477 is much more worn, resulting in a much less rusty cast of coloration. A Kadiak Savanna Sparrow in the California Academy of Sciences Collection is quite typical. There are also two skins from Middleton Island and one from Eagle Harbor, Shumagin Islands, all of which are referable to *xanthophrys*. All other Savanna Sparrows from Alaska examined by me are strictly referable to either *alaudinus* or *sandwichensis*. Among about a hundred winter *Ammodrami* from California, Washington and Oregon, I have not found one that can be called *xanthophrys*, though the latter two States present several specimens of *sandwichensis*. However, the Kadiak race is likely to be found wintering somewhere in the vicinity of Puget Sound.

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*Leucosticte kadiaka McGregor, Reprint (sic!) from The Condor, Vol. III, No. I. Author's edition; mailed Nov. 25, 1900.

Measurements of *Ammodrami* from Alaska.

	No.	Coll.	Sex	Locality	Wing	D'pth Bill	Culmen.
sandwichensis	3469	L. S. J. U.	♂	Amagnak Is.	3.10	.26	.46
	3466	"	♂	" "	3.06	.26	.45
	3465	"	♂	" "	3.13	.26	.45
	3467	"	♀	" "	2.90	.27	.46
	3464	"	♀ ?	" "	2.92	.27	.45
xanthophrys	2177	C. A. S.	♂	Kadiak Island	3.00	.24	.41
	3477	L. S. J. U.	♂	" "	2.97	.23	.40
	3638	"	♂ ?	" "	2.93	.22	.42
	3476	"	♀	" "	2.72	.23	.41
alaudinus	3592	L. S. J. U.	♂	Nutchuk, P W S	2.75	.20	.39
	3620	J. G.	♂	Cape Blossom	2.81	20	.39
	3618	"	♀	" "	2.62	.19	.39
	3619	"	♀	" "	2.67	.19	.41

13. *Zonotrichia coronata* (Pall.). Golden-crowned Sparrow.
    Juvenile ♀ (full grown), July 19.
14. *Melospiza melodia insignis* (Baird). Bischoff's Song Sparrow.
    Three specimens, October and November.
15. *Passerella iliaca insularis* Ridgw. Kadiak Fox Sparrow.
    Karluk, two specimens (no date).
16. *Lanius borealis invictus* Grinn. Northwestern Shrike.
    Immature ♀, February 28.
17. *Cinclus mexicanus* Swains. American Dipper.
    Three specimens, Oct. 19, Nov. 10 and 21.
18. *Parus atricapillus septentrionalis* (Harris). Long-tailed Chickadee.
    Eight specimens, October to January. These are not referable to *occidentalis*. The species may possibly here be a winter visitant from northern Alaska, where *septentrionalis* is common in summer and fall.
19. *Hylocichla aonalaschkæ* (Gmel.). Dwarf Hermit Thrush.
    St. Paul, ♂ adult (No. 3493 Coll. L. S. J. U.), July 17, '97. This specimen is unusually pale and grayish dorsally, almost the shade of *H. aliciæ*. This can scarcely be due to abrasion and fading, as the comparison is made with adult equally worn July and August specimens of *aonalaschkæ* in my collection from Sitka.

PRINCE WILLIAM SOUND.

Eighteen species of birds are in the collection from this region, taken by A. W. Greeley in June and July, 1896.

1. *Gavia lumme* (Gunn.). Red-throated Loon.
   Orca, two adult males, July 17 and 19.
2. *Lunda cirrhata* Pall. Tufted Puffin.
   Nutchuk, three adult specimens, July 5 and 11.
3. *Brachyramphus marmoratus* (Gmel.). Marbled Murrelet.
   Orca, ♂ adult, July 17.
4. *Uria troile californica* (Bryant). California Murre.
   Nutchuk, three adult skins, July 5 and 11.
5. *Larus glaucescens* Naum. Glaucous-winged Gull
   Orca, two adults, July 21 and 29.
6. *Phalacrocorax pelagicus robustus* Ridgw. Violet-green Cormorant.
   Nutchuk, two adult females, July 5.
7. *Merganser americanus* (Cass.). American Merganser.
   Iak Lake, ♀ adult, July 24.
8. *Phalaropus lobatus* (Linn.). Northern Phalarope.
   Orca, ♀ adult, June 27.

"SNAP SHOTS AT PROMINENT ORNITHOLOGISTS. NO. I."

The New President of the A.O.U., Dr. C Hart Merriam

9. *Tringa minutilla* Vieill. Least Sandpiper.
Nutchuk, ♀ adult, June 30.

o. *Heteractitis incanus* (Gmel.). Wandering Tattler.
Orca, ♀ adult, July 19.

1. *Arenaria melanocephala* (Vig.). Black Turnstone.
Orca, four adults, July 19.

2. *Hæmatopus bachmani* Aud. Black Oyster-catcher.
Nutchuk, ♂ adult, July 5.

3. *Archibuteo lagopus sancti-johannis* (Gmel.). American Rough-legged Hawk.
Iak Lake, juvenile (full grown), July 24.

4. *Corvus caurinus* Baird. Northwest Crow.
Orca, ♂ juvenile (full grown), July 21.

5. *Ammodramus sandwichensis alaudinus* (Bonap.). Western Savanna Sparrow.
Nutchuk, ♂ adult, July 2.

6. *Passerella iliaca annectens* Ridgw. Yakutat Fox Sparrow.
Nutchuk, eight specimens, June 30 to July 7; Orca, ♂ adult, June 27.

7. *Hirundo erythrogaster* Bodd. Barn Swallow.
Nutchuk, ♂ adult, June 30. This specimen does not appear to answer to the characters ssigned by Palmer* to *unalaschcensis*. The Alaskan skins I have examined (Kotzebue Sound nd Sitka) do not seem to differ on an average in wing measurements and extent of white markngs on the tail, from U. S. specimens.

8. *Cinclus mexicanus* Swains. American Dipper.
Iak Lake, ♂ adult, July 23.

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*Avifauna of the Pribilofs, l. c

THE CONDOR.

Bulletin of the

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OF CALIFORNIA.

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This issue of The Condor was mailed Jan. 15.

EDITORIAL NOTES.

A Greater A. O. U. The Eighteenth Congress of the American Ornithologists' Union proved unusually interesting in results, inasmuch as the proposed changes regulating its membership constitute one of the broadest and most radical moves ever considered by the Union at a single meeting. Previous to this session there seemed nothing to indicate that a general revision of the membership was to follow, but it is apparent from the response according the movement that those closest to the Union had become awakened to the advisability, if not the necessity, of providing in some way for the expansion which has steadily been going on in ornithological ranks during the past decade.

The proposed changes in the by-laws of the Union provide for increasing the number of Active members from 50 to 75 (provided that not more than five members of this class be elected in any one year), these members to be designated as Fellows. An intermediate class, also limited to 75, will be created, to be known as Members, and will include the more advanced workers of the present associate membership. A third class will be known as Associates and will embrace all those members of the Union not included in the two previous classes. Thus an encouraging system of progression is provided, and any ambitious and competent member in the Associate list, may, in proper time and by election, advance to the position of Member, whence, according to ability and existing vacancies, he may in time become a Fellow.

It is understood that these proposed changes in the By-Laws will be adopted at the 1901 Congress and become operative. We learn that probably 50 Members will be elected from the associate list at that time and that the dues of Members will be fixed at $4.

This expansion of the Union's membership has produced an indisputable feeling of satisfaction on the Coast, and ornithologists generally must feel that this marks the beginning of an era of increased prosperity for the A. O. U. When those governing the Union have so generously met the demand which an increased interest in the science has created, it becomes the part of those constituting the membership to voice their appreciation of the movement by concerted action in adding new members and by strengthening the fraternal ties which bind together those allied with the Union.

The sentiment of Californians seems aptly expressed in a personal letter to the editor from Mr. F. S. Daggett of Pasadena, Cal., whose loyalty to ornithological work in the state is well known. Mr Daggett comments as follows: "The action of the A. O. U. in recommending an increase of its 'active' list is a source of much gratification, inasmuch as it shows that the Union is under the control of liberal, broad-minded men who are anxious and willing that the Union shall broaden to meet all legitimate requirements. The orthologists of the country may rely with perfect confidence upon such a governing body, who, by this act, have done so much to cement all interests in the Union.

"When the new members are chosen, if the Pacific Coast is fortunate enough to receive recognition, I trust the selection will be made only after careful and long deliberation and with the co-operation of our Club. Most of us have no aspirations that way, but we are deeply interested in seeing that the right man is selected, if we are so fortunate as to draw a prize. It is unfortunate that all of the present Active members resident on the Pacific Coast, do not fraternize with the element which has done so much to foster ornithology and bird protection in California during the past few years; else I would suggest that a selection be made upon their recommendation. As it is, I believe that the best results would be obtained by presenting a candidate selected by a full vote of the Club, which includes all the California A. O. U. active members, who are still active in the true sense.

"Of course all this is premature and only based upon the presumption that the A. O. U., in its expansive mood, *may* confer an honor upon some of our Pacific Coast workers. Whether we receive recognition or not, we certainly can feel that the A. O. U. is a strong, broad body worthy of the hearty support of every ornithologist in the country, and I am sure that the Cooper Ornithological Club, with its constantly growing influence, will, as heretofore, be its most loyal subject."

The editors take this occasion to extend thanks to Mr. Richard C. McGregor for compiling the index for Vol. II of THE CONDOR, which is sent out with this issue. The index will be found most complete, bird species being indexed by both the common and the scientific names, while each author is credited with all his titles for the year.

With this issue of THE CONDOR, Mr. Walter K. Fisher becomes Associate Editor from the Northern Division, vice Henry Reed Taylor, who finds his time too limited to give the office attention. Mr. Fisher's energy, as well as his knowledge of matters ornithological, will prove him a valuable member of THE CONDOR'S staff, and this magazine looks confidently forward to carrying out to some extent during 1901, its ideas of what constitute an ideal ornithological magazine.

* * *

"The Way of the Transgressor Is Hard."

In the March-April CONDOR for 1900, we called attention editorially to a circular sent out by one, W. B. Caraway of Alma, Ark., in which he posed as a dealer in song birds. At the end of the circular occurred a paragraph reading as follows: "*We can furnish birds' skins and skins of small animals (native) for taxidermists and millinery purposes in large quantities at reasonable prices.*"

It appears that a copy of THE CONDOR containing the editorial was sent by Mr. Otto Widmann of Old Orchard, Mo. to Mrs. Louise McG. Stephenson, a member of the A. O. U Committee for the Protection of Birds, residing at Helena, Ark. Mrs. Stephenson writes that previous to this she had written all the circuit judges of Arkansas asking them to charge the grand juries in their circuits with regard to the 'Bird Law Act' which is operative in Arkansas. Among the judges who responded was one residing in the circuit where lives the offender, Caraway.

A copy of THE CONDOR'S editorial and some of Mr. Caraway's circulars were sent by Mrs. Stephenson to the judge, who replied that he had given them into his prosecuting attorney's hands. The results are apparent from the following copy of a letter kindly furnished THE CONDOR by Mrs. Stephenson.

W. B. CARAWAY,
DEALER IN
Living Wild Animals and Birds for Scientific
and Propagating Purposes. Pet Stock
of All Kinds.

ALMA, ARKANSAS, U. S. A.,
Dec. 1st. 1900.

Mrs. Louise McGowen Stephenson,
Helena, Arkansas.

Dear Madam:—I have to inform you that through your information to Judge J. H. Evans of this, the Crawford County Circuit Court, I was indicted by the Grand Jury for exporting wild birds from this state for which I will have to pay a heavy fine, costs etc.

Now it may have been your duty to have reported me to the court for this but to be plain and honest with you I did not even know there was a law against shipping live birds for breeding or propagating purposes or animals of any kind for this purpose.

I do know that I can get all I want in other states shipped per my orders for breeding & etc.

I don't want to violate our laws and am a lawful abiding citizen born and reared in this state, a democrat and a southern man—if you had kindly written me before hand explaining there was a law against shipping birds I of course would have ceased doing so at once. It don't seem to me that I, a stranger, should deserve this kind of treatment from your hands and it is hard for me to pay out money, besides the unpleasant notoriety I get in the matter.

Under the above circumstances I don't believe I would have treated a person like you have me for I believe in that old adage: Do unto others as you would have them do unto you.

Respectfully,
W. B. CARAWAY.

Arkansas justice and Mrs. Stephenson are to be commended for this valuable effort toward bird protection and Mr. Caraway has very naturally reached that stage where penitence is becoming! But it may be safely assumed that the evidence was ample to warrant a conviction. One of the weak points in Mr. Caraway's plea is that he ascribes his conviction to exporting wild birds from out of his state. This evidently does not constitute the most serious offense of which he was guilty, for his offer to supply the millinery trade "in large quantities at reasonable prices" must be taken as evidence of his willingness to execute any possible orders in this line. Wherefore, his conviction is a step in the right direction.

A Bird Protection Bill for California.

Following is a draft of the protective Bird Bill which was prepared by the Cooper Ornithological Club, and put in legal shape by Senator Edward K. Taylor of Alameda. The bill will be introduced in the California State Legislature which convened Jan. 7, by Senator Taylor and its successful passage is confidently hoped for. The bill received the endorsement of the California Fruit Growers' Convention and numerous Granges and Farmers' Clubs, and should it become a law California may well congratulate itself upon taking rank with the foremost bird protection states of the Union. The bill reads as follows:

An Act to amend the Penal Code by adding a new section to Title XV thereof, to be numbered six hundred and thirty-seven and one-half, providing for the protection of wild birds and their eggs and nests.

THE PEOPLE OF THE STATE OF CALIFORNIA, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

A new section is hereby added to the Penal Code and to Title XV thereof, to be numbered six hundred and thirty-seven and one-half, as follows:

Section 637½. Every person who shall, in the State of California, take, gather or destroy the eggs or nests of, or hunt, shoot, shoot at, take, kill or destroy, buy, sell, give away or have in his possession any wild bird (except those species designated, generally known, and already protected as game birds), or who shall expose or have in his possession for sale, any part of the plumage, skin or body of any bird so protected, except as hereinafter provided, shall be guilty of a misdemeanor; provided further, that nothing in this section shall prohibit the killing of the English Sparrow at any time, by anybody, or prohibit the killing of any bird, except by means of poison, by the owner or tenant of any premises where such bird is found destroying berries, fruits or crops growing on such premises.

Certificates may be granted by any incorporated society of natural history within the state, through such persons or officers as said society may designate, to any properly accredited person of fifteen years or upward, permitting the holder thereof to collect birds, their nests or eggs, for strictly scientific purposes only, or to keep native birds alive for study. The certificates authorized by this section shall be in force one year only from the date of their issue and shall not be transferable. This act shall take effect upon its passage.

* * *

A CLUB PRESENTATION.

At the meeting of the Northern Division of the Cooper Club held in San Jose, Jan. 12, Mr. W. Otto Emerson retired from the presidency after three years of continuous service in that office. At an appropriate moment Mr. H. R. Taylor arose and embodied in a brief speech the valuable results which the club had accomplished during Mr. Emerson's administration. As a token of esteem, and appreciation of his services Mr. Taylor, upon behalf of the Northern Division, presented the popular ex-president with an inscribed copy of Ridgway's Manual. The inscription read as follows: "Presented to W. Otto Emerson by the Northern Division of the Cooper Ornithological Club of California, in appreciation of his valuable and energetic services as president through three consecutive terms of office, and as a tribute to his loyal efforts in behalf of the Club's Bird Protection Bill. Jan. 12, 1901."

* * *

EIGHTEENTH A. O. U. CONGRESS.

The Annual Congress of the American Ornithologists Union convened in the University Museum at Cambridge, Mass. from Nov. 13-15. On the program were twenty titles, embracing many excellent and interesting subjects in ornithology. A number of papers were illustrated by lantern slides and the session was, withal, one of the most interesting yet held by the Union. The Eighteenth Congress will be remembered more particularly because of the movement proposed to regulate the membership of the Union; the proposed action is referred to in another column.

The Petrel is the title of a bright 16-page monthly magazine on ornithology edited and published by John M. Martin of Palestine, Oreg., the initial issue bearing the date of January, 1901. The magazine is neatly printed, and a number of interesting articles, principally of an oological trend, make up the contents of the number, being supplemented with several interesting half-tones of nests and eggs. Judging from its widely-distributed list of contributors, *The Petrel* will not restrict itself to any limited field and we trust that success may attend its career. Mr. Martin is well known as former publisher of the *Oregon Naturalist*. Subscription 50 cents.

* * *

"Bird-Lore" Notice.

I wish to announce that owing to Charles Keeler's unexpected departure on a prolonged cruise in the Pacific, Lyman Belding will continue, from the standpoint of Stockton, the series of articles on California bird-life of which Mr. Keeler had contributed one number to "Bird-Lore." I also desire lists of extra numbers of "Bird-Lore" which subscribers may have for disposal.

FRANK M. CHAPMAN,
Englewood, N. J. EDITOR.

VOLUME 3. NUMBER 2.

MARCH-APRIL 1901.

THE CONDOR.

Cooper Ornithological Club. Santa Clara, California.

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THE CONDOR.

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A Bi-Monthly Exponent of Californian Ornithology.

Vol. 3. No. 2. **Santa Clara, Cal., March-April, 1901.** $1.00 a Year

Two Years With Mexican Birds. I. Giraud's Flycatcher.

(*Myiozetetes texensis*).

By E. H. Skinner.

[Read before the Northern Division of the Cooper Orn. Club, March 2, 1901.]

FOR two years I was located near Tapachula, in the state of Chiapas, Mexico. This is the southernmost point of the Mexican republic, and properly speaking in Central America, as it is south of the isthmus of Tehuantepec. Tapachula is in nearly the same longitude as St. Louis and in the same latitude as southern Guatemala and northern Honduras.

Along the coast there is a belt of lowlands averaging thirty miles in width, and back of this belt the mountains rise abruptly to an elevation of ten thousand feet. The lowlands are covered with almost impenetrable tropical jungles, with here and there patches of dreary, treeless, uninhabited plains covered with coarse grass. The heat on these plains is intense and burning, and even in the shady jungle it is suffocating.

E. H. SKINNER.

All day long there is an almost unbroken silence. The insects can hardly get up energy to chirp. The Turkey and Black Vultures sit motionless on the limbs of some dead tree or circle lazily in the air. The egret roosts in the shade along the sloughs. The Motmot in the jungle sits on a branch and at long intervals utters his *coot*, *coot* in a heavy bass, but toward nightfall the chachalaca, the parrots and macaws vie with each other in making the evening hideous with their discordant cries.

Going inland the temperature grows lower as we ascend the foothills, and when we reach an elevation of 5,000 feet the distinctively tropical trees have disappeared, as well as the lowland birds. Here among the semi-tropical forests of oak, palms and countless other trees, is the home of the Quesal (*Pharomacrus mocinno*), the national bird of Guatemala, which pines away and dies if denied its liberty. Among these woods are clearings planted to coffee. This semi-tropical country along the mountainside is called the coffee belt. Near the summit there are forests of pine, but on the plateau and higher volcanoes the trees are stunted, it being very hot in the daytime and freezing at night. Here we find bluejays, crows, killdeers and other birds of a temperate clime. Having spent most of my time in the coffee belt, I am more familiar with its birds than with those of other sections, so I shall try to describe its most noticeable bird, Giraud's Flycatcher (*Myiozetetes texensis*), which although not the commonest variety, is the most conspicuous on account of its bright color and lively, noisy ways.

He is never found in the woods but is very abundant on the coffee fincas and pastures, where he sits on some prominent tree ever and anon diving off after a gnat. His cry, which sounds like *cha-tee-a*, with the accent on the middle syllable, (his Mexican name by the way), repeated rapidly several times, can be heard from morning till night all the year round. He has another little note, "weet", which is uttered while he is perched, watching for flies.

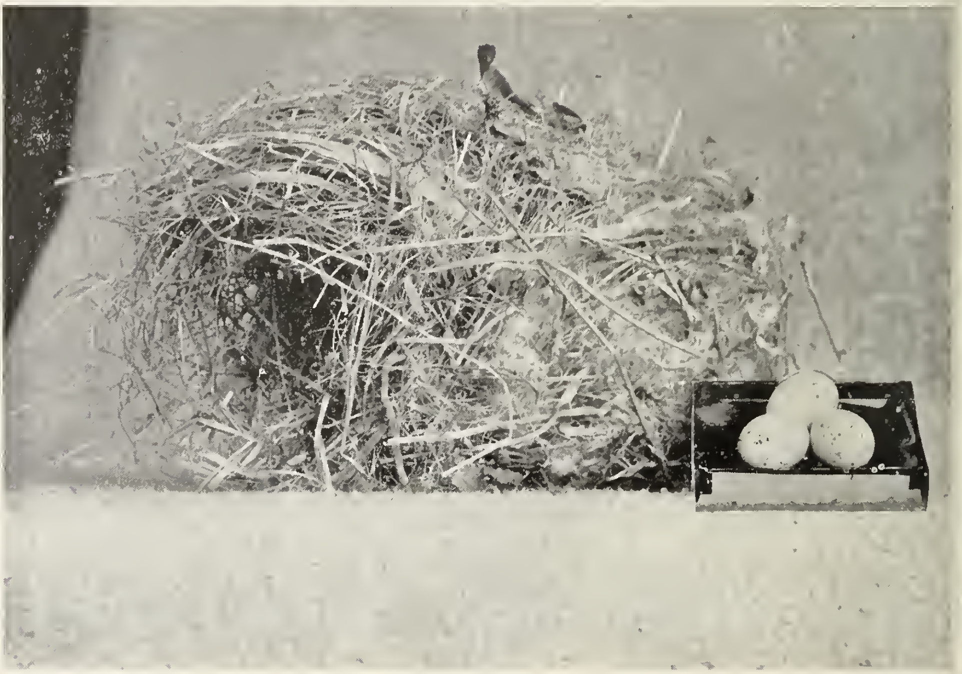


Photo by C. Barlow.

NEST AND EGGS OF GIRAUD'S FLYCATCHER (*Myiozetetes texensis*).

(The opening of the rooted nest at one end, fronting down, is shown).

These flycatchers are agressive little fellows. I have seen them chasing turkey buzzards and sparrowhawks which happened to come their way. Sometimes when I have been taking their nests they would make the most terrible disturbance, flying at me and making a great racket. Not only the outraged pair, but as many as eight birds that were within a radius of two or three hundred yards would come to swell the tumult, while at other times the female would leave the nest silently on my approach and not a sign of a flycatcher could be detected while taking the nest.

The nest is a bulky affair measuring on an average nine inches in length, five in height and five inches wide, being well roofed with the opening toward one end, fronting down. This is shown in the accompanying plate. The nest is composed of dry grass, shreds of plantain and banana leaves, with cottony material interwoven.

Giraud's Flycatcher is not particular in selecting a nesting site, almost any place from which a good view can be obtained, suiting him. I have found nests ranging from four feet to thirty feet in height, in low bushy trees almost but not quite hidden as the birds build on the outside or top of a tree, and in almost bare trees in high and conspicuous situations. I have taken nests from orange trees, ten, twelve and sixteen feet up; from low thorny saplings four, five and eight feet up and many nests from bunches of plantains which generally hang about twelve feet up. I have also seen several among the twigs in the tops of almost branchless trees from twenty to thirty feet up. The birds never build in coffee bushes, and in the cafetal never below the tops of the coffee trees (a height of about ten feet). Nests that are found low down are built in open places.

Giraud's Flycatcher lays usually three or sometimes four eggs. These possess a latitude of variation common to flycatchers' eggs, but may be described as generally resembling the eggs of the kingbird, though perhaps not averaging as heavy in markings. I took my first set of fresh eggs on April 14 and the last on May 4. A set of four fresh eggs was taken on May 10, but it was from a nest from which I had taken a set of four on April 21.

This flycatcher is a friendly little fellow, the clothesline in the back yard being one of his favorite perches, and the trees near the house seemingly his favorite nesting site, as there were six nests within a radius of 100 yards. It is interesting to watch the birds when they have young, and to see them shoot up into the nest from below and presently dive out again.

* * *

May in the High Sierras.

DURING the summer-like weather I arrived at the summit of the Central Pacific Railroad, altitude ,000 feet, the evening of May 10, 1898. There was no snow at the station nor in the large meadow which extends three miles westward, but there were large patches of it on the surrounding peaks and ridges.

The season was unusually early, the willows were partly in leaf and catkin, buttercups, white and blue violets were in flower, while pasturage was good in the meadow. Frogs(*Hylas*) were peeping, grouse and the Plumed Quail (*Oreortyx p. plumiferus*) were uttering their nuptial notes, butterflies and other insects were numerous, the marmot, chipmunks and other small animals were active but had probably been out of winter quarters only two or three days; as snow was ten inches deep on the second of the month, and did not disappear from the station until the 8th, so Mr. Ott, the agent told me.

The Plumed Partridge (*Oreortyx p. plumiferus*) Blue-fronted Jay (*Cyanocitta s. frontalis*), Cassin's Purple Finch (*Carpodacus cassini*,) White-crowned Sparrow, (*Z. leucophrys*), Junco and Arctic Bluebird, (*Sialia arctica*) were common. Additional summer residents in moderate force were noted during the 11th and 12th, namely: Spotted Sandpiper (*Actitis macularia*), Killdeer, (*A. vocifera*), Red-shafted Flicker (*Colaptes c. collaris*), Traill's Flycatcher, (*Empidonax traili*), Ruby-crowned Wren (*Regulus calendula*) and Western Robin (*Merula m. propinqua*). On the 12th I found a nest of the Mountain Quail or Partridge and one of a Junco, each containing a single egg.

The 13th and 14th were warm but there was a great change in the evening of the latter, when a chilling rain was followed by sleet and snow which continued several days until snow was nearly three feet deep, so I was informed. I went over the meadow again in the afternoon of the 15th; the snow was melting about as fast as it fell, and I found a small flock of Horned Larks which had come to spend the summer. With them was a Western Lark Sparrow (*Chondestes g. strigatus*), a storm-bound migrant, probably an intended summer resident of Truckee Meadows. A Barn Swallow (*Hirundo erythrogaster*) was circling over the meadow in a snow-squall, three cock quails were whistling at the same time and a Western Meadow Lark (*Sturnella m. neglecta*) occasionally sang.

A Lewis's Woodpecker (*Melanerpes

torquatus) flew as rapidly as possible through Donner Pass toward the Sacramento Valley, having been driven from the east slope—its summer home—by the storm. Numerous Belding's spermophiles were scurrying about in the the meadow, exhibiting a hardihood with which I had not previously credited them, as they go into winter quarters about the tenth of September,—sometimes earlier. My last observations here, at this time, were on the 16th when, after a long search, I found the two nests I have mentioned in three inches of snow, Both contained three eggs and both had been deserted. The effect of such a storm on bird life can be easily imagined. Frequent sudden changes with snow may be expected from about 4,000 feet upward, anytime in May, and they are likely to occur until the middle of June. Besides destroying some nests the storm must have forced some birds to seek other nesting localities, lower in the mountains.

About every second or third winter snow is nearly twenty feet deep on the level,—sometimes a foot or two deeper, and is so late in melting that few quail breed here, but travel on eastward until they find bare ground. I suppose birds have more trying experiences in these mountains during nesting time than they have in St. Michaels, Alaska, as the mean temperature is nearly the same in both, but in the Sierras there is much more snow. From the foregoing it would seem that an inclement climate is the chief cause of bird scarcity in the high Sierras. However individuals are hardly more numerous in the lower coniferous forest between 4,000 feet and 2500 feet altitude, than in the same forest above these heights. The bulk of the birds in the Sierras are in and near meadows and open parts of the forest,—especially the seed-eaters.

Perhaps few species of Californian birds desire a home in the dense, lonely woods. In the chapparal belt below the fir forest, birds are abundant at all times, though they have apparently as many enemies as in other parts of these mountains, the California Jay (*Aphelocoma californica*) being more numerous than in any other part of the state. Below this and in the extensive, sunburned interior valleys, little water, vegetation and few insects are the causes of rarity of birds during the summer, when the annual plants are ripe or withered by or previous to the first of June. Birds sometimes lived in these valleys several miles from water when there were but few farm-houses. I have found Valley Partridges (*Lophortyx c. vallicolus*) in oak groves when there was no water within two miles of them, and supposed they were able to live where they were by drinking dew-drops at morning and evening.

In quite extensive waterless tracts in southern Lower California birds are abundant, as they find in the fruit and sap of cacti a substitute for water. Deer and cattle also thrive there if the cholla cactus is plentiful. On the almost waterless Cedros Island wild goats or deer, perhaps both, opened the tops of the large *Echinocactus* with their hoofs, making a cap-like cavity in which the juice of the plant collected and gave the animal its much needed drink. The coyote shows equal ingenuity on the dry west coast of central Lower California by digging in the sandy arroyos for water. If my Mexican boatmen at La Paz is to be believed it is still more ingenious in getting food, for, according to Pedro, the coyote fishes for crabs with its tail,—sticks its tail down the hole of the crab, the crab *bites*, is pulled out and eaten. I would advise the reader to salt Pedro's story. Still, it is possibly true.

L. Belding.

Stockton, Cal.

* * *

J. H. Bowles writes from Tacoma, Wash., that Western Evening Grosbeaks (*Coccothraustes v. montanus*) are very numerous about the city, flocks of as many as forty birds being seen since Feb. 1.

Some Architectural Traits of the Western Gnatcatcher

(*Polioptila cærulea obscura.*)

By Corydon Chamberlin, Vallecito, Calif.

With sketches from nature by the author.

THE few observations on *Polioptila c. obscura* here recorded cannot do justice to this very interesting subject and are offered only in lieu of a more complete study. Of all the birds it has been my lot to make unhappy, I cannot think of any one whose good qualities have appealed to me more strongly than the Western Gnatcatcher. He is the embodiment of many good characteristics; whenever seen he is a delight to the eye and his note, if not musical, is unique and unmistakable and you may be sure of him whenever you hear it.

On his arrival in this latitude, near the first of April, he adds new life to the woods and his *tease, tease–e* may be heard incessantly on every hand. When he first appears in his trim "tailor-made" suit of black, white and gray he seems at once the very personification of dandyism and well-bred modesty, but no one can accuse him of vanity for he forgets his appearance entirely in the pursuit of work as he is a model of industry.

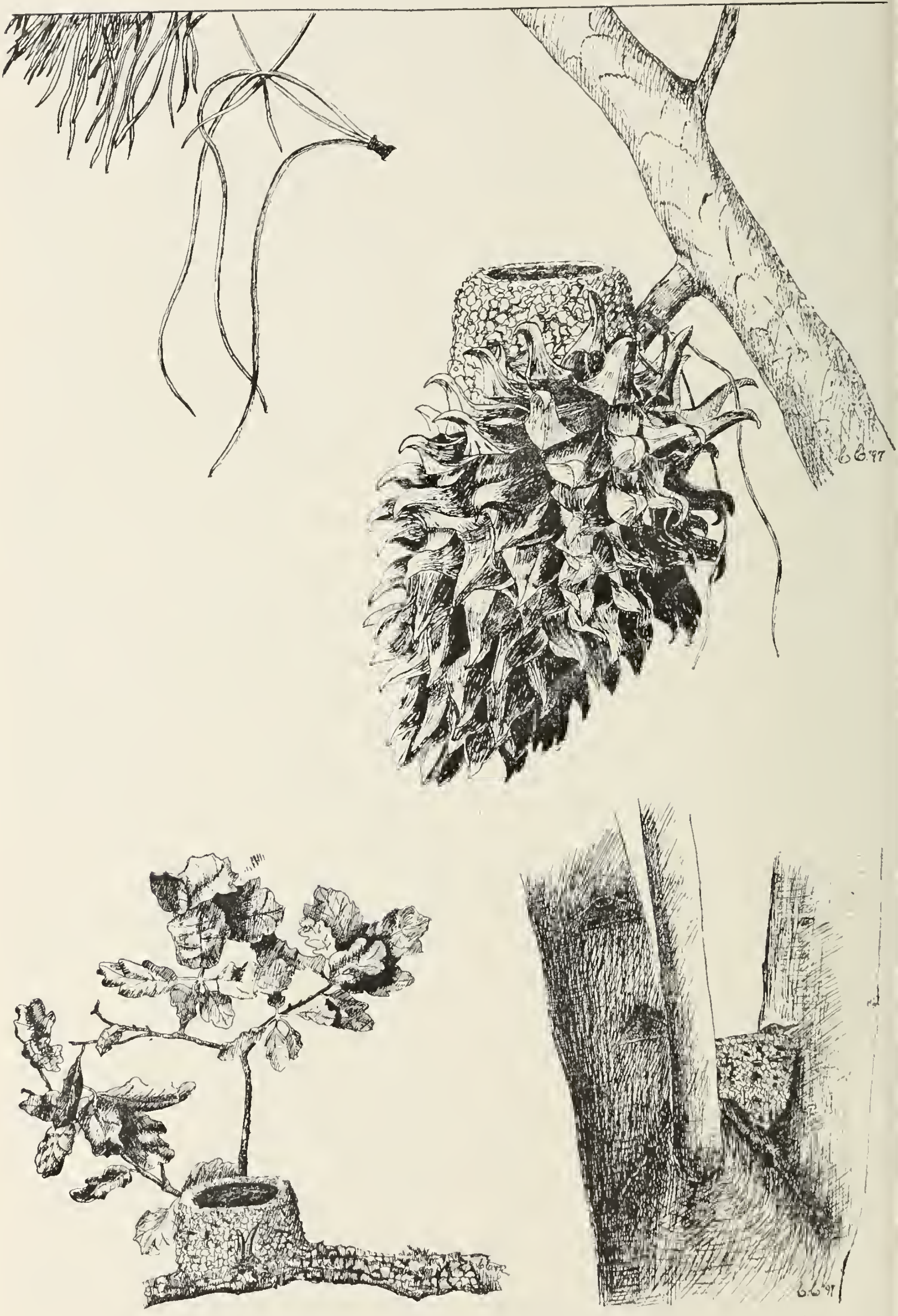
Mr. Gnatcatcher is thoroughly domestic in his nature and usually establishes two homes each breeding season. How many fake nests he builds or how many of his pretty houses are robbed or torn up by his enemies I cannot tell. It is as an architect principally that I wish to dwell on the gnatcatcher and will return to this part of the subject further on.

The name *gnatcatcher* is misleading as regards the diet of this species, for I have repeatedly seen one tackle a butterfly almost as large as himself and bag his game, too. I think however his food is largely made up of the eggs and larvae of insects which are found on the under-side of leaves and in the crevices of bark. I have also seen him feed on small flying insects which may have been gnats or mosquitoes.

The bluejay is strongly in evidence as an enemy of the gnatcatcher and loves to tear the half-finished nest from its foundation and sit in the top of the tree with it sticking out on the sides of his bill like bunches of gray whiskers. The gnatcatchers usually resent such intrusion, and worry the jay until he drops the nest or flies away with a harsh mocking cry. I have known a pair of gnatcatchers to chase a jay from tree to tree until he was a safe distance from their nest when they would suddenly disappear to be found half an hour later in their own tree resting and scolding softly.

An unaccountable habit which this species has is that of congregating in flocks and flying from tree to tree with much noise and fluttering. I cannot imagine anything but a free-for-all cake walk that can be compared to this gregarious movement. I have often thought at such times that they were driving bluejays away for I have always seen jays flying about noiselessly on such occasions but I cannot with certainty give the cause of such assemblages, for they usually broke up when I approached the center of disturbance. It may however have been merely a choir practice or some social function,–who knows?

During the spring of '95 I first became acquainted with the Western Gnatcatcher near Lakeport, Lake Co., this state. In the latter part of April I observed them building their nests. All of the first nests I found were in small white oak trees from six to ten feet from the ground. Of the first few nests I saw being built none were finally occupied on their original site. One pair near my camping place moved their nest and made it over three times before being satisfied to deposit eggs in it. Each time that the nest was nearly complete, the birds would discover a



Drawn from nature by C. Chamberlin.

Odd Nesting Sites of the Western Gnatcatcher.

1. Nest 30 feet up on pine cone

2. Nest 7 feet up on horizontal oak limb.

3. Nest 30 feet up in crotch of alder.

more suitable site and then the work of tearing down would begin and it would be moved piece-meal to the new place and until scarcely a vestige of the nest remained in the old location. The third and final resting place for this nest was in the main crotch of a small white oak bush at such a height that I could just reach the nest by standing on tip toe. The eggs, four in number, were deposited in May and I soon after gave the birds a chance to build another nest, which chance they availed themselves of, for they reared a brood that season in June, while they probably gave the jays credit for the robbery.

The nest was built of exceedingly fine and soft material, a few small feathers being the coarsest stuff used. Very thin strips of vegetable vellum and rotten bark fibres made up the bulk of the nest. The edges at the top were drawn in, making the diameter of the opening less than that of the center of the cavity–the cavity being deep and snug-looking. The outside of the nest was laced over with cobwebs and spangled with lichens from the oaks which were bound on with webs also. The selection of lichens varied considerably with the pairs of birds, some choosing dark brown ones with black backs which gave the nest a rich but subdued cast while other nests were paler or brighter owing to the use of lighter-colored lichens–the usual kind being pale green or silver gray in color.

Most of the nests I found in Lake Co. were in small scrub oaks, but two were taken from large limbs of fair-sized oak trees. May seems to be the best time for collecting nests in this locality. During the spring of '97 I found the Western Gnatcatcher very abundant in Tuolumne and Calaveras counties but saw none above 3500 feet elevation.

Near Stent in Tuolumne Co., I secured nests in oaks, pines and one in an alder tree. My experience here destroyed all the imaginary limits I had placed on the nesting sites of this species, for I found nests in many kinds of trees, on the ends of horizontal limbs, at the base of limbs, in large and small crotches, and at heights varying from five to fifty feet from the ground. Most of the records of sets are for May. One nest was in the main crotch of an alder tree 30 feet from the ground, the tree being in a creek bed. This is the only record I have of a nest near water and I made a sketch of it as being a rather unusual site. Another rather pretty but quite typical nest was saddled to a small horizontal oak limb about six feet above the ground. It was made in between the stub of a small twig and a live twig carrying a bunch of leaves that hung over the nest like a parasol.

Perhaps the most unique nesting site ever seen of this species was the top of a pine cone in a sprawling bull pine. The cone was on a lonely limb fully thirty feet above the ground at the butt of the tree, but as the tree hung over a gully the nest was double that distance vertically from the ground. I made rough note-book sketches of several of these nests which I finished up at home.

During May 1900, while working in connection with the Duchess mine in Calaveras Co., I found a nest with half-grown young of this species in a live oak that had been killed by fire, as had all the trees on that mountain side. The nest was about 15 feet up in a crotch of one of the limbs and the young left it about the last of May. On June 7 I took a nest and five fresh eggs from, I think, this same pair in a location quite similar to the first and about 50 feet away from it. These two nests are the first I have ever seen that were devoid of lichens. On account of the fire all timber was dead and there were no lichens. The nests however were decorated with bits of burnt bark which made a rather poor substitute for the usual decoration, as far as looks go.

I think this circumstance of covering the nest with material similar in color to the tree in which the nest is situated is a means of protection rather than decoration. In this latter case the tree was charred to quite an extent and the nest was very similar in appearance to the limb on which it was built. Nests are very difficult to see unless the bird is watched as he carries material and deposits it on the nest. Both male and female do the work of building. Of all the nests I have observed, four seems to be more common than five as a set of eggs, though five is not at all unusual.

The variation in eggs lies principally in the ground color, some sets being much paler than others. Rather than take up time here in giving a detailed description of bird and eggs I refer to Coues or Ridgway, especially since I have limited myself to nests in this article, and have made little attempt to cover other phases on the subject.

* * *

A Word in Behalf of the Boy.

I have recently been impressed with certain expressions occurring in the writings of prominent ornithologists concerning the relation of the downy young of the genus *Homo* to the nests and eggs and downy young of our feathered friends. Two facts are self-evident: "Boys will be boys; all men were boys once." You may elaborate as much as you please on these two points, but do not forget to ask yourself how much you owe these same boys in the way of instruction and enlightenment and then ask how much you have done for their elevation into and encouragement in right ways of thought and action.

Next to *men* who collect birds' skins and eggs for sale, boys are probably the birds' worst enemies. But do not blame the boys until you have heard their case and have done your *duty* by them. Most children receive no instruction at home in the study of the animal kingdom and very little in the common school, both on account of the lack of time and incompetency of the instructors. I am not now placing blame upon the parents or teachers; neither do I seek to excuse the shocking cruelty of boys I have known; but I simply state what seems to me to be true.

A boy stands accused of wantonly robbing and destroying a bird's nest or of trying to collect more eggs than any other. Who will cast the first stone at him? Don't throw any stones but take the boy to your home, show him your collection of nests and eggs, explaining many things which, up to this time, he has had no opportunity to learn, because he has been considered an outlaw and no one has taken enough interest in him to speak kindly to him and ask where he lived etc. Make him feel that he is at least as important as a bluejay or an English Sparrow. Open your insect cabinet and show him the difference between a bee and a fly—between a bug and a beetle. If he asks a question answer him fully and respectfully. Shake hands with him, bid him goodbye and tell him that if he will be on hand next Saturday morning at 8:30 o'clock, you'll take him on a collecting trip with you. And don't forget to put in lunch enough for two.

In short,—stoop to entertain a thoughtless, careless boy, for *any* boy is of more value than many sparrows If you really wish to see the birds protected, make friends with the boys and seek their cooperation forthey can help more than you think. For nearly two years I have conducted a "natural history class" in my home and have been greatly pleased with the results. We meet on Tuesday and Thursday evenings of each week and go afield whenever the opportunity offers. Severa of my class have mastered the work outlined with most commendable thoroughness and alacrity. Thus I have directly influenced the boys and girls to a greater or less extent. Why cannot a hundred other members of the Coope Ornithological Club do as much or more Wouldn't the birds be glad?

F. C. Clark.

Napa, Cal.

Rare and Unusual Occurrences at Stockton, Cal.

THIS year seems an unusual one in the way of bird migration in San Joaquin County, having added to the list thus far several new visitants and also causing an influx of a single species heretofore unknown in this locality, though common in the eastern foothills. I refer to the Blue-fronted Jay(*Cyanocitta stelleri frontalis.*)

This species has become so numerous in San Joaquin County, and especially within the limits of the city of Stockton, that it has for the time being, taken the place of the noisy California Jay(*Aphelocoma californica.*) My record of its first appearance is dated November 11, 1900, at which time I saw two of this species in the vicinity of Stockton. Two days later I saw several of the birds within the limits of the city and from that time on they became quite numerous, showing very little fear in their new haunts and being seemingly at home in the white oaks with which the city abounds. Mr. Belding informs me that he has found them in the heart of the Sacramento Valley, but has no record of their occurrence in this locality previous to this year.

The abundance of the birds is shown by the result of a "blue-jay" shoot which five sportsmen from Stockton took part in on December 2, 1900. They confined themselves to a small area northeast of the city and as a result of their shoot brought home 220 birds, 100 of which were California Jays while the remaining 120 were of the Blue-fronted species. The birds are still here in large numbers and show no signs of decreasing.

Another rare visitant which is quite common here at present is the California Purple Finch(*Carpodacus purpureus californicus.*) These birds have been found at times in the timber about four miles south of Stockton, but this year they have become very abundant within the city, feeding on the new buds of the fruit trees and also on the seeds of a species of wire grass. My first record of their appearance is January 20, 1901 at which time I saw a flock of six in the fruit trees at the rear of my dwelling. They were noted in the yard each day and seemed to increase in numbers until at the present, flocks of 10 or 12 may be seen at any time.

Another straggler to this locality is the Western Evening Grosbeak(*Coccothraustes vespertinus montanus.*) On January 31, 1901 a flock of three males and six females flew from under a magnolia tree in one of the yards of the city, where they were feeding on the seeds that had fallen to the ground. On February 13, 1901 a flock of about a dozen birds were also seen in the city. This is my first record of the birds in this locality though I found them in the foot-hills east of Stockton in February 1899.

W. B. SAMPSON.

Stockton, Cal., Feb. 14, 1901.

* * *

W. Lee Chambers of Santa Monica, Cal., writes of taking two sets of eggs of Anna's Hummingbird on January 30 and February 1 respectively.

John J. Williams of Applegate, Cal. reports that a Californian Jay (*Aphelocoma californica*) was shot near that place last fall which was flourishing without the usual lower mandible. This had apparently been shot away at some previous time, but the break had healed and the jay had evidently found little difficulty in securing its usual food.

H. B. Torrey formerly of Berkeley, a member of the Cooper Club, will receive his doctor's degree at Columbia University, New York, this spring. Mr. Torrey engaged in post graduate work in zoology and has upon request, delivered several lectures on the work before various scientific societies of New York.

A. W. Johnson of Upper Lake, Cal., who possesses one of the most extensive and choicest oological collections in California recently compiled the measurements of his large series of Golden Eagles' eggs, and it is interesting to note his largest set is one from Spain, the two eggs measuring 3.26x2.34 and 3.23x2.34 inches.

In the Summer Home of the Buff-breasted Flycatcher.

R. D. Lusk, Redington, Ariz.

Having promised to write something of the nesting habits of the Buff-breasted Flycatcher (*Empidonax fulvifrons pygmæus*) it occurs to me that so little has been said of their life history that I will not confine myself to their nesting habits. Tho' the least among the genus *Empidonax* in size, they are by no means least in interest, and this is not merely owing to their rarity either.

Judging by the very few to be encountered in their known breeding localities, they are indeed rare, the largest number of them that I have seen in any one season being not more than three or four pairs. They appear in their summer haunts in the mountains, which are so far as I have found them, at altitudes of from 6,500 feet up to the summits, at about the time of the coming of the warblers, late in April or in early May.

On April 20, '99, I saw a single individual low down in the foothills of the Santa Rita Mountains and have little doubt he was bound for that range for the summer. They begin nesting, according to the earliest record in my own note book, June 3. From that date until about June 20 seems to be their normal time for beginning work. Disturbed pairs will begin nesting up to Aug. 1.

Their eggs present somewhat more variation in shape than those of others of this genus. Two of the few specimens that I have examined, taken from different sets, were sub-equal-ended, and the transverse diameter of nearly all is relatively great. The delicate, clear, creamy white color, unmarked, is uniform. I have been unable to keep track of any of the young after leaving the nest, as they are thereafter, so far as separate identification is concerned, hopelessly lost in the big trees.

They linger about their nesting locality until the warblers, vireos, Mexican Chickadees and others are feeding in flights of various mixtures wherever food is most plentiful. Just when they leave their summer homes I have been unable to stay with them long enough to ascertain; whither they go I have seen no data from which to determine.

I first made their intimate acquaintance in the Chiricahua Mts. in southeastern Arizona in 1896. Early in June I saw a pair of them just below my camp at Riggs Bros.' saw-mill, on the westernly slope of the range, at about 6,500 feet altitude. As there was no record of their nest and eggs being found it will readily be believed that I took an intense interest in that pair. I watched them in the early morning when birds are building, if building at all; watched them for hours after breakfast; watched them toward the evening when so many birds, like the proverbial lazy man, who "works the best when the sun is in the west", do a little hurried building. But those were all holidays to that precious pair. And beautiful days they were. The skies were Arizona's; the temperature ideal. The canyon stream rippled softly beneath the large sycamores upon which they stationed themselves much of the time; their little breasts shone buff in the bright sunlight; flies were plentiful and there was plenty of time for enjoying themselves, and they improved it.

Every now and then the soft *pit, pit* of the two, as they kept good account of each other's whereabouts, was varied by the *Chicky-whew* of the male. (I borrow this from my assistant Hiram, who always designated him the "Chicky-whew bird"). Not far up the mountain side, among the top branches of some large pines, a male *Dendroica graciæ* frequently halted in his tour of inspection of the bunches of needles, long enough to utter his rapid, vivacious song, much like that of the house wren tho' superior. Behind me, far up a pretty canyoncito, now and then the *chirp* of a Stephen's vireo (*Vireo h. ste-*

phensi), a veritable chicken's voice–a lost chicken– reached my ears; far up in the very dome of heaven a score or more of White-throated Swifts (*Aeronautes melanoleucus*) skimmed their rapid flight, and a pair of Painted Redstarts (*Setophaga picta*) who had a nest full of hungry mouths in the stream bank 60 yards below, passed in sight now and then, in their foraging, their black and white plumage distinguishing them nearly as far as they could be seen. Earth and trees and air fairly pulsed with fascinating interest, and the days, tho' of the longest, were all too short and too few.

But very early one morning, June 16 I saw the female fly repeatedly from the ground on the hill-side to the same limb of a large sycamore about which they had spent much time. That settled it. I was never quite certain whether I ate any breakfast that morning or not; if I did I am sure I did not know what I ate.

The female did all the work. The nest was placed in an inclined fork among the thick branches, pretty well up, about 35 feet. It was well-constructed, compact, deep, of dried grasses, a few vegetable fibers, plenty of spider's silk and into the lining were woven a few bright feathers. Two nests found this last season also contained several bright feathers, one of them, bright yellow ones of the Audubon's Warbler (*D. auduboni*) a blue one of the Chestnut-backed Bluebird (*Sialia m. bairdi*) and a barred feather of the Whip-poor-will (*Antrostomus v. macromystax*) fluttered on the edge of the nest.

In the first nest referred to, beginning on the ninth day after work began, were laid three plain, creamy white eggs of dimensions as follows: .24x.29,.24 x.29..24x.30.This set with the nest, I took, purposely, after dark one night, and the next morning they went merrily to work building another nest in the same tree, about six feet from the location of the first. In this nest two eggs were laid July 15 and 16. A set of two also followed the taking of a set of three in 99,' and a set of three the taking of a set of four this year. In fact I have met no exception yet to the lessening of the number of the second set by one.

Three years later, in '99, I revisited this canyon and, as I passed the locality of my interesting experiences, I rode slowly, and listened and watched. Could it be that I heard again that gentle *pit*? But who that loves the birds could ever forget a bird voice that had once fascinated him? There was no doubt about it; from a point 40 yards below the old nesting site, it came and I succeeded in catching just one glimpse of the bird ere he disappeared in some black willows down stream. His nest I never found. Again, last season, 1900, passing this spot on the last day but one of May, I watched and listened, and again I heard and saw these my old companions of the days of '96,–at least such I liked to fancy them. What constancy to locality! Just one pair of birds at this point year after year, and none other anywhere about.

Subsequently, I found the nest of this pair in a large pine, but I found it only after days of searching. The male had a plan for frustrating the hunter which he worked diligently and as I have noticed it in several, I take it to be characteristic. Each time as I approached the location of the nest, he came out some distance to meet me and began calling and occasionally scolding in a certain locality, thus leading me to believe the nest was somewhere in that vicinity. Once, however, I waited until long after sunset in the vicinity of two large pines, near which the soft *pit*, *pit* of the female, as I felt sure it was, answering the male had suddenly ceased the day before. Meanwhile the male was persistently, for two long hours, insisting that all his interests were in the vicinity of a tall, leaning pine a hundred yards distant, to which point he had come to meet me day after day.

Finally, when nearly dark, his voice ceased for some time, and upon my imitating his call, as I had done often, he answered me from one of the very pines I was watching. Two or three times I made him repeat it, but his voice seemed low and sleepy now. He had come home to roost, or the next tree to it. It was too late to search but I went back to camp feeling quite sure I had outwitted him. The next day I found the nest and a hard climb I had before I got above the cone upon which the nest was built and looked in upon the four dainty creamy white eggs. The nest and its situation are shown in the illustration.

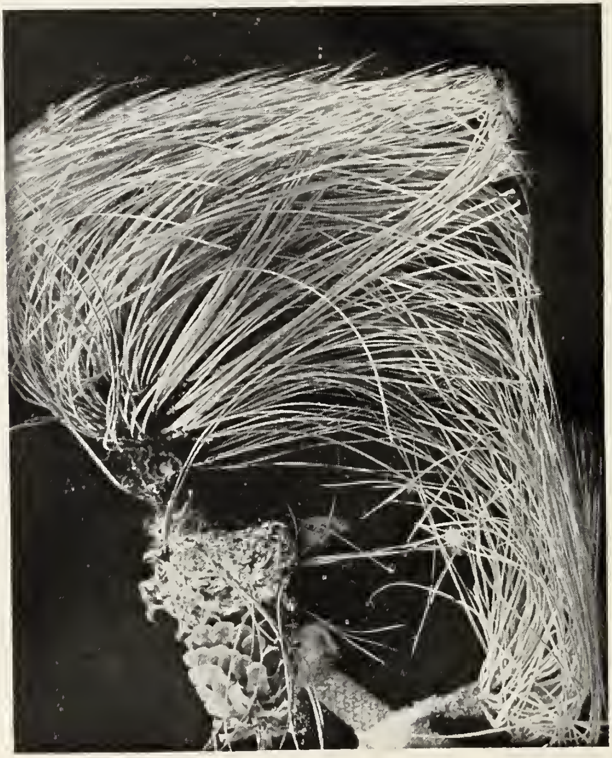


Photo by R. D. Lusk.

Buff-breasted Flycatcher's Nest on Cone.

They afterward built on the top of a horizontal limb of a large pine, sixteen feet out from the stem of the tree, in plain sight of the hawks and jays (*Cyanocitta s. macrolopha*) and for jays these mountains are the worst I have seen. Right out in plain sight that dainty little female sat all day long, a perpetual challenge, and many a brilliant fight she must have had in defense of her little home, for I saw some of them and for dash and spirit and effectiveness they could hardly be outdone. Eternal vigilance was certainly the price of success in her case. Nor did it take her mate long to come to the rescue at the least disturbance.

Their soft *pit* referred to has surprising carrying powers. It is sometimes audible at a distance of 150 yards. And I know of none other of the flycatchers having a greater variety of notes than this obscure little bird. Every now and then the male, particularly, exhibited some trait or trick to challenge my interest and admiration. He is a ventriloquist. Almost invariably his voice seems to proceed from the lower branches of the tree, or from the vicinity of the ground beneath, when in fact the author sits on one of the topmost branches of a tall pine or fir, and being so small and less inclined than other flycatchers to select an exposed dead branch, he is often hard to locate.

In both 1899 and 1900, I found this same flycatcher breeding in a virgin forest of pines and firs, among the trees surrounding a little "park", or treeless, open space, of which there are many in these mountains. It was about three miles above the location of the nest described above, and within a very short distance of the summit of the range, from which one can get a good glimpse of New Mexico, only a few miles distant. But not one of the nests found in this upper location was built upon a limb, but all against the trunks of the trees, 20 to 35 feet from the ground, in two cases in the angle of a short dead stub and in two cases with only a tiny jutting piece of bark for support or a slight depression caused by a wound in the tree.

To this there was one exception. One pair, whose nest against the side of a large pine I had watched from the date of its beginning to the day the female laid her last egg in it, climbing almost daily up to inspect it, sometimes touching her with my finger ere she would leave it, decided that such a location was too convenient for me, and built their next nest where I had to bring into requisition a 100-foot rope in order to look into it, where it was located far out on the limb of a large fir.

The reason for the uniformly different nesting sites in the two localities is doubtless one of expediency, and may be owing to the fact that in the lower locality where they are all built out on the branches, lizards are plentiful, while in the upper mountain, where they all select the tree trunks, there are no lizards to be seen, and the jays are much more plentiful than below; and the little nests of the hue of the tree bark, and in fifty per cent of the cases close in below a protecting stub, were not noticeable from above, nor easily from anywhere. One nest that I saw building was made almost exactly the shade of the bark of the dead pine against which it was built, by using plentifully of the weather-beaten remains of an old robin's nest in a tree close by. Of all the sets of eggs of this species recorded to date, as nearly as I can remember those of Messrs. Howard and Willard, taken in the Huachuca Mts., about 50 per cent have consisted of three eggs each, 30 per cent of four eggs, and 20 per cent of two eggs.

* * *

We note with pleasure that our interesting contemporary, *The Journal of the Maine Ornithological Society*, will be published as a bimonthly commencing with its third volume, instead of a quarterly as heretofore. J. Merton Swain is announced as editor for 1901.

Note on the Name of the Black-headed Grosbeak.

The Pacific Coast grosbeak described in the November number of this magazine was previously named *Hedymeles capitalis* with the following description, probably overlooked by Grinnell.

If the characterization given by Baird be considered sufficient by those versed in questions of synonymy, then the western subspecies should be known as *Zamelodia melanocephala capitalis* (Baird) as *Z. microrhyncha* and *H. capitalis* evidently refer to the same bird.

"Taking the series from eastern Mexico (Orizaba and Mirador) and northward along the Rocky Mountains of the United States, we find the black of the head continuous, sharply defined by a gently curved outline behind, and without a trace of either the vertex or postocular stripes. This is the true *melanocephalus* as restricted and may be regarded as the Rocky Mountain form. The most western specimen is 11,241, from Fort Bridger; the most northern 19,355, from Stinking River, Northern Wyoming. All specimens from the Pacific Coast eastward to the Western base of the Rocky Mountains, including Cape St. Lucas and Western Mexico south to Colima differ from the Rocky Mountain series in having the posterior outline of the black hood ragged, and irregularly indented by the rufous of the nape, which always extends in a quite broad stripe toward the eye, along the side of the occiput, and quite frequently forms a conspicuous median vertex stripe, though the latter feature is sometimes not distinct. These differences are observable only in the males, and although slight, are yet sufficiently constant to justify distinguishing them as races. The Rocky Mountain form being the true *melanocephalus*, the name *capitalis* is proposed for the western one." (*Hist. N. A. Bds., Ld. Bds., II, 74.*)

RICHARD C. McGREGOR,
San Francisco.

A Trait of the Western Robin.

THE object of this article is to further investigation by club members during the coming mating season of a peculiarity of our friend the robin, that has, so far as I know, passed unnoticed by contributors to the CONDOR, and that is the drooping of the bird's wings. For the benefit of the uninformed I will add that quite a large but variable percentage of the birds in a flock of robins droop their wings continuously while feeding and infrequently when perched elsewhere. Other avian species droop their wings at times but the habit does not seem to be so persistent in them as it does in the robin and it is in regard to the value of this habit to the bird itself that I wish to gain the assistance of the club members.

For a long time I have noticed that when juncos or goldfinches are pairing the wings of the male (and sometimes of the female) droop and flutter continuously while the bird is engaged in his amorous proposal to the female, and I have no doubt that these actions are of considerable benefit to the male birds in their annual courtships, as in some manner it expresses visibly to the female the depth and sincerity of the male bird's passion for her, and those males that were most adept in such actions might in some way mate more successfully. Lately and infrequently I have noticed male juncos and goldfinches drooping their wings in the winter months, for what reason it is hard to say. And this habit being used by juncos in winter is possibly very similar to the drooping of the robin's wings at the same period. In order to find out if this trait is confined to one sex of robins and therefore of some sexual advantage to that sex, I recently shot quite a number and noticed a lot more at close range through a glass carefully and I give the results below but as these results are rather conflicting and only obtained from one locality, I place little value in them and think it best to submit my imperfect results to the club members before the opening of the mating season so that those interested may pursue the subject more fully. In studying a species of birds sexually so nearly similar in plumage as the robins are, it is rather hard to avoid an occasional error and where I have been in doubt I have left the identity of the sex alone.

TABLE OF RESULTS.

	SEX	WINGS FOLDED	WINGS DROOPED		SEX	WINGS FOLDED	WINGS DROOPED
BIRDS SECURED.	Males.		22	BIRDS NOT SECURED.	Males.		28
	Males.	8			Males	16	
	Females.		5		Females.		9
	Females.	7			Females.	15	
	unknown		3		unknown		1
	unknown	1			unknown	2	
TOTAL.	46 birds.	16	30	TOTAL	71 birds	33	38

Sum total of 68 birds with drooping wings and 49 birds with folded wings.

JOHN J. WILLIAMS, Applegate, Cal.

February 18, 1901.

A Hawking Expedition.

On April 16, 1900, Prof. L. T. Merwin, Mr. Elmer Bickford and the writer journeyed to the hills east of Napa City to photograph and collect a set of Western Redtail (*Buteo b. calurus*) which Mr. Merwin had located two days before.

The nest was situated in the face of a cliff about 60 feet from the base and twenty feet from the top, and was composed almost entirely of oak sticks and twigs, with a few pieces of tree moss ornamenting the outside. The eggs, three in number, were nearly ready to hatch, but were successfully prepared for the cabinet nevertheless.

The task of removing the eggs from the nest was alloted to Mr. Merwin by common consent because he is at once agile, "reachy" and willing. The nest was inaccessible to the unaided hand so we used a small net at the end of a long stick. The accompanying illustration will explain how it was done.

Mr. Merwin, partly suspended upon the rope seen in the picture, handled the net and tightly hugged the cliff as he passed it around behind him within reach of the writer whose rear elevation is decidedly conspicuous. It is to be regretted that Mr. Merwin does not appear in the picture for he has a cheerful countenance.

Mr. Bickford, ever alert for the novel and picturesque, immortalized the scene by the aid of his faithful camera and it is by his kindness that we are able to present the photograph. The shrubbery in the foreground is growing from crevices in the rock and gives the picture a certain tame effect, when in fact the shrubs are 60 feet from the base of the cliff.

The hills in the background are a part of the low range extending in an easterly direction from the Napa water-

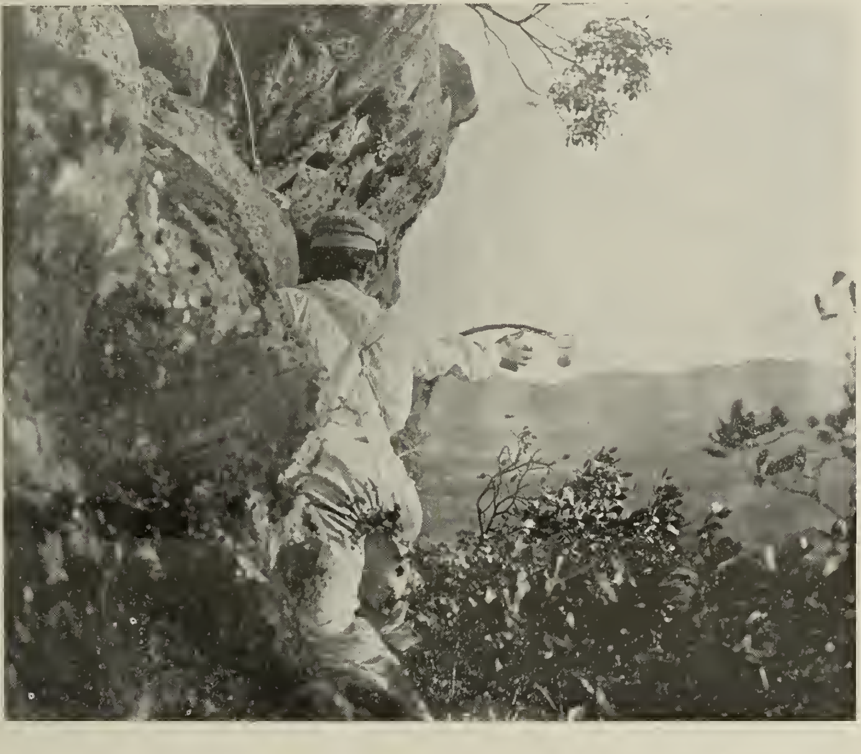


Photo by Elmer Bickford.

Collecting Hawks' Eggs Under Difficulties.

works. The woods and brushy hills in this neighborhood teem with animal life, and wild flowers without number grace their verdant heights.

F. C. CLARK.

Napa, Cal.

* * *

Song of the Golden-crowned Sparrow.

Mr. Lyman Belding of Stockton, Cal., submits the following query to CONDOR readers: "Does the Golden-crowned Sparrow ever sing while in California? I cannot say that I have ever heard it, though I have been where these birds were numerous. Dr. Cooper in 'California Ornithology' says it is a silent bird while here and he did not hear it sing on the Columbia River in May. My observations agree with his in this respect."

[Will not members of the Cooper Club and readers of this magazine observe, listen to and report any song they may hear from *Z. coronata*? Any observations sent in will confer a favor to Mr. Belding and to observers in general. Let the reports be forthcoming. ED.]

NOTE—In regard to the name of the Pacific race of the Black-headed Grosbeak, Mr. McGregor's article in the present number of THE CONDOR is quite apropos in reminding us of the name *capitalis*, which is certainly applicable instead of the new name *microrhyncha* unwittingly proposed by me last November. I did not have the pertinent literature available at the time of describing the form. It may be asserted, however, that none of the characters given as distinguishing *capitalis*, are determinant ones, being probably due to age or some variable cause other than geographical. The only tangible one seems to be that of the bills. Several Pacific coast males have the head as uninterruptedly black as Arizona examples. It may be further suggested that the authority for the name *capitalis* is Ridgway, not Baird. Therefore the name of our Californian Black-headed Grosbeak becomes technically, *Zamelodia melanocephala capitalis* RIDGWAY (Hist. N. Am. Bds. II, 1874, p. 70.)

J. GRINNELL.

* * *

A List of Birds Observed on the Pima Indian Reservation, Arizona.

BY GEORGE F. BRENINGER, PHOENIX, ARIZ.

The following is a list of the species of birds seen during four days' travel in the lower part of the Pima Indian Reservation. These four days were September 18 and 19, 25 and 26. For the number of species noted, this list would be hard to surpass, embracing, as it does, 86 species seen on a tract of probably not more than five miles long by two miles wide. Migration was at its height, and, what might be more accountable for the presence of so much bird-life, very little shooting is done on the Reservation. A brief description of the ground may be of interest. The reservation is located on the Gila River, above its junction with the Salt River. A strip of land on both sides of the river is cultivated by the Indians, water for irrigation being drawn from the river and from a lake. The latter is of crater origin, and supplies an abundance of water. In consequence of this never-failing supply, a large area of ground covered with a dense willow growth is always flooded, and at the time of my observations teemed with bird-life. The crops along the ditch tapping the lake were luxuriant. The corn, the beans and the pumkins sent forth such pleasant freshness that it is not to be wondered at that the tired, wing-sore birds after a night's flight, should be attracted by such a scene of peace and plenty. Away from irrigation was desert, dry and barren, supporting only such plant life as can withstand long droughts, and the heat of a long summer.

1. Ducks (*Sp?*)—Several flocks seen; too far off to recognize the species.
2. Great Blue Heron (*Ardea herodias*)—Several; I have often ridden up near enough to see the yellow of the eyes.
3. Black-crowned Night Heron (*Nycticorax n. nævius*)—Numerous among flooded willows.
4. Virginia Rail (*Rallus virginianus*)—Often heard, and by watching a spot from where the calls came, I discovered a bird, posed perfectly motionless.
5. Florida Gallinule (*Gallinula galeata*)—A number seen among willows; the only place I have ever found gallinules.
6. American Coot (*Fulica americana*)—Seen along with the last.
7. American Avocet (*Recurvirostra americana*)—A flock seen on sand-bar in river.
8. Least Sandpiper (*Tringa minutilla*)—A small bunch flying about a mud-flat.
9. Greater Yellow-legs (*Totanus melanoleucus*)—Seen along water course of river.
10. Killdeer (*Ægialitis vocifera*)—A few seen; evidently migrants, for they appeared worn and tired as if from long flight.
11. Gambel's Partridge (*Lophortyx gambeli*)—Numerous and unsuspicious of man.
12. Mourning Dove (*Zenaidura macroura*)—Common among mesquites.
13. Mexican Ground Dove (*Columbigallina passerina pallescens*—Only a pair seen.
14. Turkey Vulture (*Cathartes aura*)—Always in sight from daylight till dark.
15. Marsh Hawk (*Circus hudsonius*)—One seen; an early migrant.
16. Sharp-shinned Hawk (*Accipiter velox*)—Several seen dashing after sparrows.
17. Cooper's Hawk (*Accipiter cooperi*)—One seen patiently watching a chance to pounce on a Coot or Gallinule.
18. Pigeon Hawk (*Falco columbarius*)—One seen dashing into a willow thicket.
19. Desert Sparrow Hawk (*Falco sparverius deserticolus*)—Common along fences and about fields.
20. Burrowing Owl (*Speotyto cunicularia hypogæa*)—One seen on the desert.
21. Belted Kingfisher (*Ceryle alcyon*)—Seen about the flooded willow ground.
22. Texan Woodpecker (*Dryobates scalaris bairdi*)—Seen among the cottonwoods along the river.
23. Red-naped Sapsucker (*Sphyrapicus varius nuchalis*)—One seen busy pecking into the trunk of a willow.
24. Lewis's Woodpecker (*Melanerpes torquatus*)—Several seen; first time I have seen this species in this valley.
25. Gila Woodpecker (*Melanerpes uropygialis*)—Common; often seen perched on the houses of the Indians.
26. Gilded Flicker (*Colaptes chrysoides*)—A number seen.
27. Texan Nighthawk (*Chordeiles acutipennis texensis*)—Several seen flying overhead.
28. Vaux's Swift (*Chætura vauxi*)—A number seen in company with swallows.
29. Black-chinned Hummingbird (*Trochilus alexandri*)—One seen attracted by the open flowers of the morning-glory.
30. Rufous Hummingbird (*Selasphorus rufus*)—Seen with the above, and at the same time.
31. Arkansas Kingbird (*Tyrannus verticalis*)—A few belated migrants seen.
32. Cassin's Kingbird (*Tyrannus vociferans*)—More numerous than the foregoing species.
33. Say's Phoebe (*Sayornis saya*)—Occasionally seen about the houses.
34. Black Phoebe (*Sayornis nigricans semiatra*)—A few seen near water.
35. Olive-sided Flycatcher (*Contopus borealis*)—A number seen here only as migrants.
36. Western Wood Pewee (*Contopus richardsoni*)—Quite common.
37. Hammond's Flycatcher (*Empidonax hammondi*)—A few seen.
38. Western Flycatcher (*Empidonax difficilis*)—One seen.
39. Vermilion Flycatcher (*Pyrocephalus rubineus mexicanus*)—Several seen, all females.
40. Woodhouse's Jay (*Aphelocoma woodhousei*)—Fairly common; have never seen so many in this valley before: winter visitants.
41. Pinon Jay (*Cyanocephalus cyanocephalus*)—First heard; then saw three fly from the trees; first record for this part of Arizona.
42. American Raven (*Corvus corax sinuatus*)—A pair flew down into a field near my camp soon after daylight; the only ones seen.
43. Cowbird (*Molothrus ater*)—Seen among Red-wings; probably the northern form.
44. Sonoran Red-wing (*Agelaius phœniceus sonoriensis*)—Seen among rushes and in flocks in cornfields.

45. Western Meadowlark (*Sturnella magna neglecta*)—A dozen or so seen in a field.
46. Cassin's Purple Finch (*Carpodacus cassini*)——A few seen perched in a mesquite tree.
47. House Finch (*Carpodacus mexicanus obscurus*)——Several seen.
48. Arizona Goldfinch (*Astragalinus psaltria arizonæ*)—Seen feeding in field of sunflower.
49. Western Vesper Sparrow (*Poœcetes gramineus confinis*)——Very common among the bushes of the desert.
50. Western Savanna Sparrow (*Ammodramus sandwichensis alaudinus*)—A few perched on the wire of the fences.
51. Western Lark Sparrow (*Chondestes grammacus strigatus*)—Only a few seen; date rather early.
52. White-crowned Sparrow (*Zonotrichia leucophrys*)—A few seen.
53. Gambel's Sparrow (*Zonotrichia leucophrys gambeli*)—Along with the above; later this is the commoner form.
54. Western Chipping Sparrow (*Spizella socialis arizonæ*)—Numerous.
55. Brewer's Sparrow (*Spizella breweri*)—The most common species; seen everywhere.
56. Sage Sparrow (*Amphispiza belli nevadensis*)—A few seen on the desert.
57. Desert Song Sparrow (*Melospiza melodia fallax*)—Several seen among the willows and others heard.
58. Green-tailed Towhee (*Oreospiza chlorura*)—One seen in a peach orchard.
59. Abert's Towhee (*Pipilo aberti*)—Common along the river and about mesquite growths.
60. Western Blue Grosbeak (*Guiraca cærulea lazula*)—One seen; probably an immature bird.
61. Cooper's Tanager (*Piranga rubra cooperi*)—A female seen.
62. Cliff Swallow (*Petrochelidon lunifrons*)—A number were seen circling about the fields.
63. Barn Swallow (*Hirundo erythrogastra*)—This species was seen in company with the foregoing.
64. Rough-winged Swallow (*Stelgidopteryx serripennis*)—A number were seen near the river.
65. Phainopepla (*Phainopepla nitens*)—Less numerous than is usual with this species; only one male noted.
66. White-rumped Shrike (*Lanius ludovicianus excubitorides*)—Common.
67. Lutescent Warbler (*Helminthophila celata lutescens*)—Fairly numerous in the brush.
68. Myrtle Warbler (*Dendroica coronata*)—One seen.
69. Audubon's Warbler (*Dendroica auduboni*)—The commonest of the warblers; seen gleaning insects among the branches of the cottonwoods.
70. Black-throated Gray Warbler (*Dendroica nigrescens*)—One seen.
71. Hermit Warbler (*Dendroica occidentalis*)—One seen; to be sure of no mistake I rode within ten or twelve feet of the bird.
72. Western Yellow-throat (*Geothlypis trichas occidentalis*)—Several seen near water.
73. Pileolated Warbler (*Wilsonia pusilla pileolata*)—Only a few seen.
74. Mockingbird (*Mimus polyglottos*)—A family were seen on a brush fence; from their noisiness they had evidently been disturbed by something.
75. Palmer's Thrasher (*Harporhynchus curvirostris palmeri*)—Several seen.
76. Bendire's Thrasher (*Harporhynchus bendirei*)—Seen on the desert.
77. Leconte's Thrasher (*Harporhynchus lecontei*)—One seen skulking among the desert bushes.
78. Crissal Thrasher (*Harporhynchus crissalis*)—Several seen.
79. Canyon Wren (*Catherpes mexicanus conspersus*)—One heard and finally seen; usually found only in rocky places.
80. Baird's Wren (*Thryomanes bewicki leucogaster*)—One seen.
81. Western House Wren (*Troglodytes aedon aztecus*)—Several seen at intervals in brush fences.
82. Rock Wren (*Salpinctes obsoletus*)—Seen at different times.
83. Verdin (*Auriparus flaviceps*)—Common; more so among the cat's-claw brush than elsewhere.
84. Ruby-crowned Kinglet (*Regulus calendula*)—Several seen; evidently just down from the north.
85. Western Gnatcatcher (*Polioptila cærulea obscura*)—Seen among the mesquites.
86. Willow Thrush (*Hylocichla fuscescens salicicola*)—One seen in the peach orchard where the Green-tailed Towhee was observed.

Echoes From the Field.

Evening Grosbeak Near Palo Alto. Notes in the January CONDOR indicate a general invasion of the coast valleys by flocks of grosbeaks (*Coccothraustes v. montanus.*) As none are recorded from the San Francisco peninsula, I will note two males and four females, taken by Mr. T. J. Hoover on November 25, now in my collection. These specimens were secured from a flock on the lower San Francisquito Creek where they were feeding in the willows. Mr. Hoover states that since the above date he has seen several flocks in the vicinity of Palo Alto.

RICHARD C. MCGREGOR, Oakland Cal.

Mice as Enemies of Ground-nesting Birds. The carnivorous habits of chipmunks as related in the recent issues of THE CONDOR were very interesting to me, though I believe mice are far more guilty. Mice are a perfect pest to ground-builders in this country, as they burrow into the ground several yards away from the nest and then tunnel until they reach the bottom of the nest.

They then dig upward into the nest and carry the eggs into their tunnel to eat. I have often found broken and unbroken eggs several feet from the nest in a burrow. I have never actually seen mice do this, but the tunnels are much too small for anything else. The Ruffed Grouse (*Bonasa umbellus sabini*) are the worst sufferers that I have yet found, and their eggs are the largest that I have seen destroyed in this manner. All the small ground-builders suffer more or less.

J. H. BOWLES, Tacoma, Wash.

Notes From Oakland and Vicinity. In the gulches back of Oakland birds have been exceptionally numerous this winter, some species appearing in numbers such as are rarely known here. I might note especially that during the months of December and January I saw five Townsend's Warblers (*Dendroica townsendi*) in one gulch; three of these were together in the same bush.

In different places in Oakland and Berkeley I saw four Western Winter Wrens, (*Anorthura h. pacifica*) a very unusual occurence. The Red-breasted Nuthatch (*Sitta canadensis*) was found, but in smaller numbers than two years ago when they were comparatively numerous. Audubon's Warblers (*D. auduboni*) seem less common than last year.

The California Woodpecker (*Melanerpes f. bairdi*) is quite numerous in the oaks around the University grounds; much more so than for some years. The Western Golden-crowned Kinglet (*Regulus satrapa olivaceus*) has been quite common in flocks in Oakland and Berkeley. JOHN M. WILLARD, Oakland, Cal.

Occurrence of the Black Brant and American Goldeneye in Los Angeles Co., Cal. The twentieth century was opened in a very satisfactory manner on the morning of Jan. 1st. when Mr. E. R. Hull presented to the writer a handsome pair of *Branta nigricans*, shot at the Bolso Chico Club grounds near Newport, on that date. These, the first actual specimens taken in the territory covered by Grinnell's list, confirm the statement made therein that it is an occasional visitor along our coast. At one time the Black Brant was a much sought-for game bird about San Diego Bay, eighty miles south but of recent years has decreased rapidly in numbers and is now only occasionally taken.

Another interesting take is that of a pair of *Clangula clangula americana* shot at the same place on Jan. 5, by Dr. A. Fenyes. Mr. Grinnell notes in his list a single specimen of the American Goldeneye taken in 1894. All these birds have found their way into my collection. F. S. DAGGETT, Pasadena, Cal. Jan. 8, 1901.

Capture of Another White-throated Sparrow. I have an adult female White-throated

Sparrow (*Zonotrichia albicollis*) taken in the canyon at Pescadero, San Mateo Co., Cal. on December 29, 1900. This I believe is an unusual occurrence.

The Western Winter Wrens (*Anorthura h. pacifica*) were very common, thirteen being seen in two hours.

A flock of Western Evening Grosbeaks (*Coccothraustes v. montanus*) were seen in the neighborhood on this date. JOHN M. WILLARD, Oakland, Cal.

Capture of a California Condor Near Pomona, Cal. The taking of a California Condor (*Pseudogryphus californianus*) is always of interest especially when found in the Sierra Madre Mountains, where the former large stock interests have given away to fruit and grain. Occasionally one is shot by hunters in the more remote parts, but as usual with such specimens, they are left to waste owing to lack of knowledge as to their preparation. To Mr. J. Eugene Law's intelligent action I am indebted for a fine specimen which was shot north of Pomona Jan. 16. Mr. Law writes of it in substance as follows: It was first observed about two miles west of Lordsburg, just a mile below San Dimas canyon. When first seen it was flying towards the hills in the direction of Marshall canyon, which is just east of San Dimas, about twenty feet high over the ranch. It flew about 300 yards and then lit on a sycamore to rest, evidently. It was followed and wounded slightly in the wing with a rifle ball, but it flew away and fell, striking the ground of its own weight. Two more rifle shots, one taking effect, failed to kill, the bird moving a short ways after each. After the last it was given two loads from a shot gun with buckshot at 50 feet; then after clubbing it on the head the bird had enough vitality to bite severely. All of these statements are confirmed by the sieve-like condition of the skin, the rifle shot across the breast disturbing at least a pound of flesh. It is an immature bird, as indicated by the dark down-covered neck and head which later becomes yellow and bare; also the imperfect white of the wing linings which later become pure white. The second day after killing the bird weighed 17 pounds. Length, 3 feet, 6½ inches; extent 8 feet, 6½ inches, wing 28½ inches; tail 13½ inches, crop empty. FRANK S. DAGGETT, Pasadena, Cal.

The Sitka Kinglet in California. On November 25, 1900, I secured an adult male specimen (No. 4453 Coll. J. G.) of *Regulus calendula grinnelli* in San Mateo County, California. It was among the redwoods in Pescadero Creek Canyon on the west slope of the Santa Cruz Mountains. This race has been previously recorded only from southeastern Alaska in summer. The present specimen seems to indicate a southward movement in winter, probably following the humid coast belt. When the skin of *grinnelli* is compared with ordinary *calendula*, the differences are at once apparent. In the former, the whole under parts from the base of the bill to, but not including, the crissum are suffused with maize yellow. The back is bright dark olive-green, darkest on top of the head bordering the vermilion crown-patch. The bill is slenderer, and general size much less than in usual specimens of *calendula*. Length, in inches, 3.94; wing, 2.17; tail, 1.76. Among thirty skins of *Regulus calendula* from California so far examined, I find no other specimen approaching this form to any pronounced degree. I would suggest that collectors in California, especially coastwise, look over their material carefully for any similar examples. J. GRINNELL, Palo Alto, Cal.

Shrike Notes. In a railroad cut between Pacific Grove and Point Pinos Light on December 28 last I surprised a California Shrike (*Lanius ludovicianus gambeli*), that was trying to manage a large Limbless Lizard (*Anniella pulchra* Gray.) It would attempt to fly off with its prey, but the muscular, smooth, snake-like lizard repeatedly wriggled out of the shrike's beak. It was after one of these ineffectual attempts that I captured the lizard and discovered the true nature of the animal that was causing so much trouble. The Limbless Lizard, as its name implies, is destitute of legs. It lives from a few inches to several feet under the earth (usually in sandy soil) and is found most frequently in the vicinity of the small bushes of *Lupinus arboreus*. It has never been observed above soil, and if the shrike has learned to dig the creatures out, then the shrike is possessed of much patience, and the lizards have a formidable enemy. I have often wondered what animals prey upon them. Nothing is known of their life history.

Mr. Wm. L. Atkinson, in THE CONDOR III, page 11, suggests that *Lanius ludovicianus gambeli* does not return to eat impaled food after having once left it. I was of this opinion till last summer (Aug. 8, 1900,) when I noted something to the contrary in Sierra Valley, Cal., (near the town of Vinton, Plumas Co.) The bird in question was, however, *Lanius ludovicianus execubitorides*. I copy essentially what I wrote at the time. "While setting some mammal traps this afternoon I was surprised to see a *Lanius* fly into a sage-brush bush only a few feet from me. It hunted about for a moment till it found an impaled grasshopper, which was first carefully tasted and then quickly bolted. The shrike then flew away, but returned at once and 'tasted' the little twig upon which the grasshopper had been impaled. This it did twice, then whet its its beak vigorously and flew to the topmost twig of the bush, fluffing itself into a round ball.

WALTER K. FISHER, Stanford Univ., Cal.

* * *

On the Generic Name of the Californian Condor.

Readers of THE CONDOR may be interested to learn that as early as 1842 the Californian bird was separated generically from the South American species. In that year Lesson began an "Index Ornithologique" which appeared in numerous installments in a Parisian journal, *L'Echo du monde savant* and in the initial part of this "Index" he distinguished the Californian Condor under the name *Gymnogyps*, which name, owing to the rarity of the journal in which it appeared, has been buried for over half a century.

Gymnogyps, having many years priority over *Pseudogryphus*, will become the proper generic term for *Vultur californianus* Shaw, the reference being, *Gymnogyps* Lesson, *L'Echo du monde savant*, ser 2, VI, no. 44, Dec. 8, 1842, col. 1037. This "Echo" was issued about three times a week from 1834-1846, and contains many new generic and specific names of birds. I have been able to consult only part of the series (1838-1843) and would be agreeably surprised to see the remainder. Any one who may wish to surprise me should send a copy to the National Museum, Washington, D. C.

CHARLES W. RICHMOND.

* * *

We regret being compelled to crowd out the January and March minutes of the Northern Division which will appear in May. However Club members may be informed of some recent actions:—the Club's Bird Bill has been passed by the Senate and has every prospect of passing the Assembly; the Club expects to incorporate at once and members may guage its prosperity by the fact that 21 new members were elected on March 2.

* * *

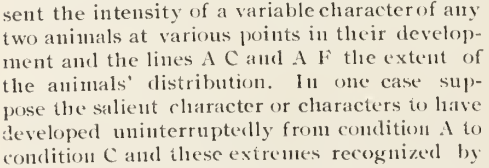
Mr. Joseph Grinnell, we hear, is to give a course in general ornithology the coming summer at the Hopkins Seaside Laboratory. This course conducted under the auspices of Stanford University, will aim to present the classification, characteristic anatomy, and habits of birds, particular attention being paid to those about Monterey Bay.

We note with much pleasure that *The Osprey* has commenced the Biographies of American Birds projected two years ago by Dr. Gill. Our joy is tinged with sadness, however, when we reflect that *The Osprey* can not complete, with justice to the subject, more than six biographies a year, and hence the series not before A. D. 2030!

COMMUNICATIONS.

QUESTIONS OF THE DAY.*

Some months ago editorial comment was made in the CONDOR (July-August 1900, p. 95) on a 'valuable service to ornithologists whose lots are cast in the San Francisco Bay region, referring to the recognition by name of certain birds of this region which are intermediate in character between those found to the north and south respectively. From the standpoint taken, which seems to be one for convenience in labeling specimens, this 'solution of the difficulty' might commend itself to collectors in that region providing they never received specimens from their fellow collectors a little to the north or south, and to these latter it would be a more or less questionable boon under any circumstances. In case the ornithologists of the San Francisco Bay region should desire to attach names to the birds found not more than 100 miles either north, south or east of them they would find that this supposed labor-saving device had multiplied their troubles instead of simplifying them. Moreover, an additional name in a group of this kind rather tends to obscure the relationships of the forms than otherwise. To one who has seen no specimens whatever the binomial *Chamæa fasciata* and the trinomial *Chamæa f. phæa* would indicate "an unbroken gradation from one to the other," exactly what admittedly exists. Thus if two names indicate the facts it would not seem to be more convenient to have three. Under different circumstances however it is conceivable that even with no greater difference between the extremes it might be advisable to adopt several names in order to represent the facts; and this also even if the respective degrees of difference were slight and difficult to determine.



To illustrate, let the lines A, A′, B, C, D, E, F, and G in the accompanying diagram represent the intensity of a variable character of any two animals at various points in their development and the lines A C and A F the extent of the animals' distribution. In one case suppose the salient character or characters to have developed uninterruptedly from condition A to condition C and these extremes recognized by name; then suppose in another case a development from A to D, after which there is a constant condition from D to E with the intensity of D, and in like manner suppose a development from E to G and thence constant to F. In this case although the intensity of F does not exceed that of C it seems that the facts can be best represented in nomenclature by three names instead of two and although the intensity of B and D are equal it would be advisable to recognize D in nomenclature, while it would serve no useful purpose, as far as present knowledge goes, to treat B in the same manner. This is theory. The real conditions are of course much more involved than any simple diagram can indicate; nevertheless the rapid increase of collections and knowledge of physiographic conditions constantly contribute to the elucidation of problems of this sort. Such questions certainly appear in the study of groups of mammals and possibly to a slighter degree in the study of birds. Certainly a name is unnecessary for a condition which represents neither of two extremes nor a special development of either, but merely a point between them on either side of which is a progressive development in opposite directions. And furthermore, degree of difference is not the sole criterion for the application of names; and the fact that a species or subspecies is difficult to identify is not alone a reason for withholding a name. A lazy 'lay' ornithologist or an ignorant one might contend that, since it requires care and experience to distinguish some species of *Empidonax*, it would be most convenient to 'lump' them. As a matter of fact there have been very few *subspecies* described which are as difficult of discrimination as the *species Empidonax minimus* and *E. traillii alnorum*.

The tendency to revolt among the 'lay' class against the so-called splitting seems to be not so much because it is thought to be based on unsound principles, but more because it brings about a multiplication of names which are hard to remember and because it makes the identification of individual specimens difficult. The popular ornithologist, following in the footsteps of other popular scientists, has reached the point where he cannot keep pace with the man who gives up his life to technical work. There was a time when country gentlemen of the Gilbert White type were able to keep fairly abreast of all branches of natural science, but now to be expert in any one branch requires almost a lifetime of study. The question then arises—is this a deplorable condition, or is it the natural outcome of a vast increase in quantity and quality of material, a corresponding increase in facilities for work, and a convenient access to useful contributive results of investigations in other branches of science? Is it strange that the careful ornithologist should continually add named and labeled facts to the sum of knowledge as well as the astronomer with his new telescopes discover new stars and the histologist with his new methods of preservation find unexpected conditions?

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*See Bird Lore, III, 38-39, Jan.-Feb. 1901.

A name is called a handle to a fact; and it might be argued that if the handle becomes too slippery to grasp it loses its usefulness. There is another side to this however, for even a slippery handle may be held firmly by a strong or practiced hand, and if the facts be worth grasping, is it not more profitable to have trained hands for slippery handles than to have no handles and lose sight of significant facts?

"The importance of determining with the utmost exactness the geographical variations of birds in further elucidating the laws of evolution by environment" certainly cannot be overestimated. Practically all that is known of this subject has been accomplished by careful systematists, splitters possibly, who with large series of specimens have conscientiously worked out problems which in many cases could not possibly be appreciated by equally acute workers having few specimens from limited localities. Would it then advance knowledge of this subject to promulgate a doctrine that characters not convincing in a single specimen should be disregarded. A few mistakes now and then may not be more harmful than otherwise, for in rectifying them a better appreciation of the facts is always gained and new lines of investigation are often started. From the beginning of systematic zoological work mistakes have been made, but if this were to deter workers from entering the field, progress would be exceedingly slow. The mistakes which were made in the days of 'lumping' were certainly more egregious than any the 'splitters' have made, and it can hardly be gainsaid that of the two extremes, splitting is the one which tends to the most careful work and the keenest appreciation of nature's facts. If the great army of amateur ornithologists cannot keep pace with the technical systematists there is still nothing in the nature of the case which will interfere with the very important studies which they are making of the life histories of our birds. In publishing the results of his work the ornithologist who does not have access to large collections may choose to subordinate subspecific names by printing them in small type or referring to them collectively under each species and still the value of his contributions to distribution or life history is not necessarily impaired. If it is impossible to draw a mean between 'splitters' and 'lumpers', there ought to be room for each to work in his own sphere.

The foregoing remarks are made in no controversial spirit whatever, but entirely in the hope that they may elicit further discussion of questions which must be of considerable concern to all who are interested or working in systematic zoology.

Wilfred H. Osgood.

Washington, D. C. Feb. 18, 1901.

ANENT POSSESSIVE BIRD NAMES.

> *"Be not the first by whom the new is tried,*
> *Nor yet the last to cast the old aside."*

Editors of the Condor:—You will perhaps permit me once more, through the medium of your paper, to open the question of the use of common bird names. The question which I raise this time is not of common names *vs.* scientific names, but has to do with the changes which have been rung on some of our trivial names.

The most radical change is that adopted by the Biological Survey and first used by them in North American Fauna No. 16. This is the dropping of the "'s" in such names as Townsend's Warbler making Townsend Warbler. This at first sight looks peculiar and in such names as Gray Tanager and Brown Song Sparrow one might be led to suspect these birds of being respectively gray and brown, but this is not a serious objection.

The points in favor of the change are stated in a letter from Dr. Merriam, dated December 22, of which the following is a part:

"I would state that my practice of dropping the "'s" in the common names of species derived from the names of persons is based on two things: (1) The fact that the species are not in any way the property of the persons whose names they bear, but are merely named in honor of these persons; (2) The modern tendency in similar cases in other departments of science. You are aware of course that the National Board on Geographical Names has for many years abandoned the use of possessives in all geographical names, as Lassen Butte, not Lassen's Butte, Hudson Bay, not Hudson's Bay, and so on. Similarly the Forestry people in their catalogue and checklist of forest trees of the United States have dropped the possessive, using Parry pinion, not Parry's pinion, Jeffrey pine, not Jeffrey's pine, Coulter pine, not Coulter's pine, Englemann spruce, not Englemann's spruce, and so on to the end of the list. Among botanists the same tendency is notable, and it occured to me that there was no particular reason why we should stand at the tail of the procession."

It might be added in favor of the simpler form of name that there is a slight saving of time and space. Hudson Bay is shorter and simpler than Hudson's Bay and just as specific. The same is true of all personal names either botanical or zoological. I trust, Mr. Editors that you will find it desirable to adopt this idea for The Condor.

Personally I take little interest in the matter, common names being altogether unreliable, but as there is considerable difference of opinion among our members, it seems well to bring the subject before the Club as a whole.

There is also some variation in names of birds named for states. Thus a glance through the checklist shows thirteen species referred substantively to California, while five are modified by Californian. Similarly we find Canada Jay and Canadian Warbler. These names are inconsistent somewhere and one form of name should used be throughout. Certainly either Canada Grouse or Canadian Ruffed Grouse should be changed.

Just one more point and I will close. In spite of our checklist, which is supposed to regulate the use of names, there is a growing disregard of the A. O. U. trivial names. In some cases older names are used and in others new names are coined. Sierra Juneo for Thurber's Junco, Valley Quail for Valley Partridge, Turkey Buzzard for Turkey Vulture are examples from recent publications. I cannot do better than to quote a paragraph from Dr. Merriam's letter as clearly stating my own feeling in the matter:

"Your inquiry with respect to the A. O. U. tendency in common names gives me an opportunity to state that I place no weight whatever on the fact of the adoption or rejection of a particular name, or form of name, among the common names of birds as used in the A. O. U. checklist. In other words, my position is and has always been that the A. O. U. ruling on points of scientific nomenclature should carry great weight, but that in matters of common English names of species every man is at liberty to use whatever name he pleases. Whatever one's views may be on this matter, the fact remains that so large a number of writers do use common names different from those in the Code that it is absolutely necessary in many cases to give the scientific name if the record is of any value."

Respectfully,

RICHARD C. MCGREGOR.

San Francisco, Feb. 7, 1901.

PARASITES IN BIRDS.

EDITOR THE CONDOR:—In Vol. II, page 91 of THE CONDOR I note a communication regarding tapeworms in young mountain quail, and in Vol. III, page 15 a communication on further tapeworm observations. Let me say that these observations are not unique; so far as statistics are to hand quail are moderately frequently infected in various parts of the world. The most accurate statistics at hand, in a recent paper on the parasites of birds in the Rhine provinces, Germany and Switzerland shows that out of six hundred thirty (630) birds examined only one hundred eighty (180) or 28 per cent were free from parasites, while 231 or 35 per cent harbored tapeworms in varying numbers. Other authorities state that in Europe the true partridges are infected in six out of seven cases, or in eight out of eleven cases. The same is true of allied species. It may positively be said that these species are not dangerous to man further than that, if present in sufficient numbers, they are detrimental to the general health of the bird. In various parts of France and Germany, tapeworm epidemics among game birds have frequently been noted. I have, however, a somewhat extensive summary of the results of these studies which will appear in the present number of the Proceedings of the Nebraska Ornithologists' Union. To this will be added the records of collections made here from various kinds of birds and by many observers.

I will be glad to identify species for your correspondents, if they will send me specimens. It is not always possible to give an accurate identification from a single specimen where the species is imperfectly known, and it is necessary that the tapeworm should have both head and ripe segments. Specimens may be sent in alcohol preferably after preservation in corrosive sublimate mixture, or in 5 per cent solution of formol into which the parasites may be put immediately after removal from the host. The accumulation of data regarding these forms is of great scientific and economic importance. I shall gladly avail myself of all the help which your correspondents may be able to give.

Very truly yours,

HENRY B. WARD.

University of Nebraska, Lincoln, Nebr.

Publications Reviewed

LAWS REGULATING THE TRANSPORTATION AND SALE OF GAME. By T. S. Palmer and H. W. Olds. Bulletin No. 14, Biological Survey pp. 88 and table of closed seasons.

This publication is by far the most complete and practical compendium of game laws yet given the public, covering as it does all the statutes now in effect, including federal, state, or in many instances county laws. Full information concerning market hunting, shipment of game, transportation of live game for propagation, close seasons and numerous other points of importance are dealt with at length, accompanied by numerous tables and maps in detail. It is impossible to review at length such a valuable addition to our knowledge of the game laws, and we advise the reader to procure a copy of this publication and to keep it where it may be consulted freely. By this means will each individual appreciate the vast amount of compilation necessary to produce such a complete digest as well as the amount of solid information it contains.—C. B.

LOOMIS——California Water Birds No. V.—Proc. Calif. Acad. Sci. 3rd Ser. Zool. Vol. II, No. 5, pp. 349-363. Issued Dec. 24, 1900.

Mr. Loomis's fifth paper presents the "results of a study of the water birds off Monterey from May 1 to June 12, 1897." Like his previous papers this one is carefully composed and the various topics are methodically arranged under suggestive headings. Under "General Observations" are enumerated the 35 species of water-birds observed, among which we note *Larus glaucus*. The specimen, on which this record is based, does not show the characters of *L. barrovianus*, which is the form we would expect to find on this coast. We also note that our only record of *Uria lomvia arra* for California (COOPER, Proc. Calif. Acad. Sci., V. p. 414) is shown to have been based on an immature specimen of the ordinary *Uria troile californica*. Mr. Loomis sees no obvious reasons for rejecting the old record of *Creagrus furcatus* off Monterey merely on account of the remoteness of the nesting ground. As in his last paper the author does not recognize trinomials. The brief remarks on the "Cause of Return Migration" appear to be mainly in the nature of emphasis on ideas already stated in his former papers.—J. G.

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PROFESSOR COLLETT ON THE MORPHOLOGY OF THE CRANIUM AND THE AURICULAR OPENINGS IN THE NORTH-EUROPEAN SPECIES OF THE FAMILY STRIGIDÆ.

By R. W. Shufeldt. M. D., Reprint from *Journ. Morph.*, Vol. XVII. No. 1., pp. 119-176; plates XV to XX, and numerous text figures.

This paper is a "full and complete English translation" of Prof. Robert Collett's memoir entitled *Craniets og Oreaabningernes Bygning hos de nordeuropæiske Arter af Familien Strigidae*, with footnotes and some general considerations by Dr. Shufeldt. Prof. Collett, in the first part of his work, divides the owls of northern Europe into six groups, "based upon the morphology of the cranium and upon the structure of the external ear-openings and their dermal appendages." Ten species are considered and all belong to the subfamily *Bubonincæ* "(the other subfamily, which is represented by *Strix flammea* does not occur in Scandinavia)."

The second part consists of careful descriptions of the morphology of the crania and ear openings of the ten species. In concluding the paper, Dr. Shufeldt gives "Opinions upon the Position of the Strigidæ in the System," presenting the views of Huxley, Newton, Max Fuerbringer, Hans Gadow, and H. L. Clark. He states his own opinion as follows: "Regarding the owls as a whole, they may be considered as forming a group of nocturnal birds of markedly raptorial habits. Some of the species, however, are largely diurnal in their ways. They are not especially related to the *Accipitres*, but are, on the other hand, remotely allied with the *Caprimulgi*. What we now know of the structure of such forms as *Steatornis* and *Podargus* sufficiently indicates this much." The translation is well presented, and is illustrated by six lithographic plates (by Prof. Collett) and seven text figures, redrawn by Dr. Shufeldt, from plates by Prof. Collett. —W. K. F.

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THE WILSON BULLETIN No. 33: A Summer Reconnoissance in the West, by Lynds Jones and W. L. Dawson, Oberlin, Ohio, covering observations during a 7000 mile trip over fourteen states, with notes and observations made on the fly is a very readable paper if the observations are not taken too seriously. Mr. Jones says in his introductory remarks, "The only new feature introduced is the keeping of horizons for certain places or certain lengths of time aboard train or steamer, in the effort to more clearly illustrate what one might hope to find in retraversing this region."

This idea of dividing the trip into bird horizons when speeding through the country on a railway flyer is commendable, but when the observations are confined to a small locality like the Pacific slope of Los Angeles Co., they partake of the nature of a local list and it is with such lists that we must make our comparison in order to determine if the observations are accurate or of a more or less guesswork nature. To show how worthless such a list as that published by Mr. Jones might be to a stranger in the land, I will mention a few inaccuracies or cases of mistaken identification. We will overlook his discovery of magpies in the vicinity of San Bernardino for that was made from the train and of course subject always to mental reservation; but when he enters the Pacific slope of Los Angeles County, the home of three-fourths of the members of the Southern Division of the Cooper Ornithological Club; a section more carefully and continuously observed during the past ten years than any other part of California, and then publishes a list of birds observed which he commends for its accuracy, it is time to turn on the X ray. Both the California and the Pasadena Thrasher are noted although only one occurs here. Samuel's Song Sparrow has not been taken in the section mentioned.

The Black-tailed Gnatcatcher although it occurs plentifully thirty miles east and half that distance west has not been taken here, in spite of the fact that for years all our resident members have been looking keenly for it. Only one specimen of The Prairie Falcon has been taken in ten years, although it occurs east and west of us. The Green-tailed Towhee, Brewer's Sparrow and Calliope Hummingbird are rare stragglers in the valley during the migration but at the time Mr. Jones visited this vicinity, July, none have ever been seen, they having retired to the ranges beyond that in which Mt. Lowe is situated.

I believe but very few California Cuckoos have been seen during the past ten years. During the same period The Western Winter Wren has been seen but twice and then in midwinter. It is unnecessary to call attention to other identifications almost as glaring, for enough has been shown to illustrate the danger of publishing local lists without years of experience gained in the locality itself. This especially applies to the mountainous regions of the West where our California ornithologist would not dare to make a record without having evidence not only to satisfy himself but also that which would satisfy his associates in the club as well. In other words no identification is accepted without the specimen to back it, except in species that differ so as to allow no chance of error and the observer known to be familiar with it.

The value of local lists cannot be disputed but they should be made up from observations and facts indisputable, especially when such lists are given color by the standing of the author.—F. S. D.

* * *

APPENDIX TO COOK'S "BIRDS OF COLORADO." The "Birds of Colorado" in bulletin form by W. W. Cooke, has just been strengthened by a second appendix, giving us a total number of species to the credit of the state of 387, of which 243 are known to breed. Prof. Cooke has put much time, travel and expense into this work and has threshed into reliable form the multitude of notes and publications bearing on this subject which he could bring to light. There yet remain large tracts of country within the state which have produced no notes, and additions will be made to the list from year to year.

Mr. Cooke gives Colorado a list greater than any other State in the Union, excepting Nebraska, whose list counts up 400. The list is subdivided in many interesting ways, such as "birds breeding in the mountains but not on the plains," "birds of the plains," "residents the year round" and "winter visitants only." The list of stragglers of which but one record is known number sixty-seven, among them mention being made of such rareties for this section as three varities of surf ducks, a Roseate Spoonbill and the Connecticut and Canadian Warblers.

Our quail (introduced) promise future variations from the natural order of distribution. The farming country from Denver to Fort Collins is much infested with quail, both from the East and Texas. The California partridge has been introduced in Mesa County on the western slope and has thriven wonderfully, while the Sealed Partridge is slowly spreading over a large area in the southeastern part of the state. Our friend, R. C. McGregor, comes in on the list by a substantial addition of a Ridgeway's Junco, while I regret to observe that Mr. Cooke has brought to notice all my old papers in amateur journals, which I had considered safely buried.—F. M. DILLE.

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LOOMIS, LEVERETT M. Vicinity of Monterey in May and Early June. (Cal. Water Birds, No. V. Cal. Acad. Sci. Dec. 24, 1900).

PALMER, T. S. AND H. W. OLDS. Laws Regulating the Transportation and Sale of Game. Bull. No. 14, Biological Survey 1900.

SHUFELDT DR. R. W. On the Systematic Position of the Sand Grouse (Pterceles; Syrrhaptes). (Reprint Am. Nat. XXXV, No. 409. Jan. 1901).

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Plant World, III, Nos. 10—12, Oct.–Dec., 1900; IV, No. 1, Jan., 1901.

Popular Science XXXIV, No. 12, Dec. 1900; XXXV, No. 1, Jan. 1901.

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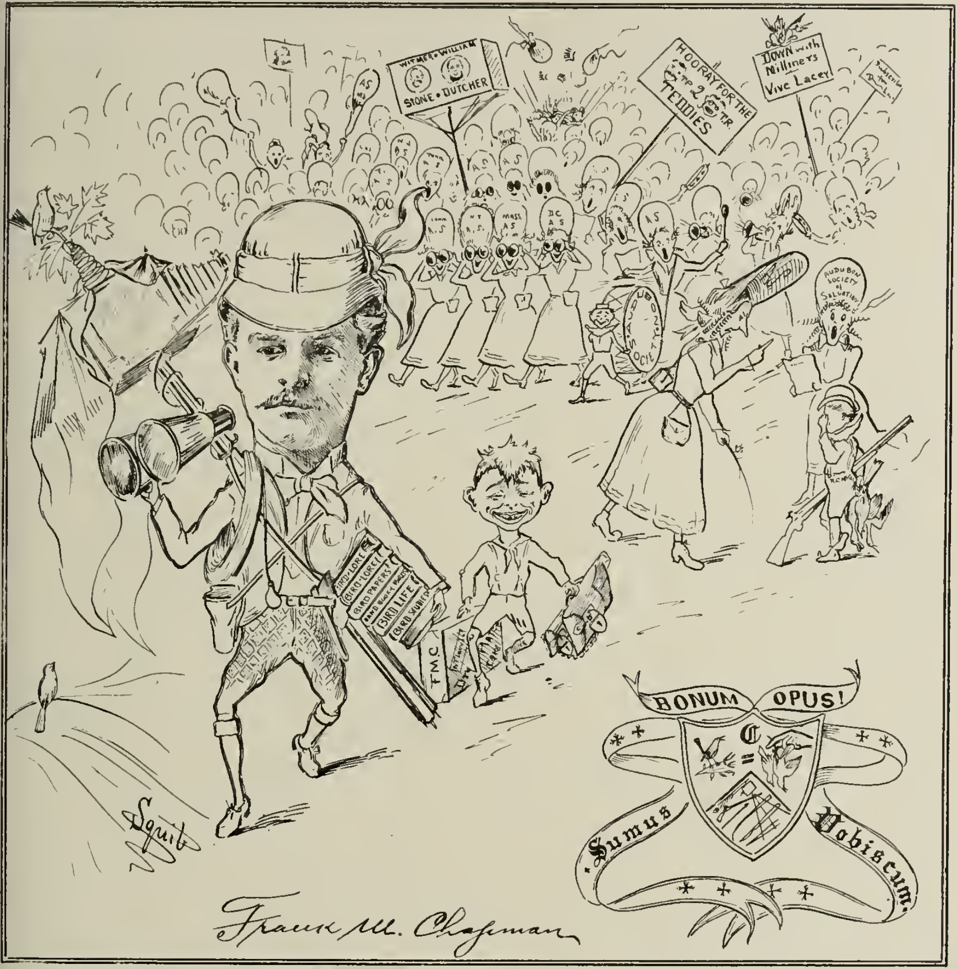
Wilson Bulletin, No. 33, Oct. 1900.

"Snap Shots at Prominent Ornithologists. No. II."



Dr. Palmer in a Pillory!

California ornithologists are familiar with the splendid work that is being accomplished in the interest of bird protection by their *quondam* fellow citizen Dr. T. S. Palmer of the U. S. Department of Agriculture. During the winter Dr. Palmer has appeared repeatedly before various state legislatures to explain the practical side of bird protection and urge the passage of better laws, while his rigid enforcement of the federal regulations has made him a terror to illicit game dealers. Recently he filled another role which would doubtless have appealed strongly to the feelings of this latter class of gentlemen had they been present.

In company with several prominent members of the A. O. U. Committee on Protection of N. A. Birds, Dr. P. appeared a short time ago before a night session of the Delaware Legislature at Dover. After the meeting the visitors inspected those curious survivals of the olden times, peculiar to the state of Delaware—the whipping post and pillory. Dr. Palmer with characteristic cheerfulness offered to impersonate the criminal and was forthwith placed in the pillory.

We cannot but think of the fiendish joy and exultation of the wily millinery-collector or the dealer in contraband quail could they only have been present at that moonlight 'fiesta' in the jail yard and have been able to view the relentless monitor of the Lacey Act, with his neck and wrists held firmly in the vice-like grasp of the pillory!

THE CONDOR.

Bulletin of the

COOPER ORNITHOLOGICAL CLUB

OF CALIFORNIA.

Published bi-monthly at Santa Clara, Cal., in the interests and as Official Organ of the Club.

CHESTER BARLOW, - - Santa Clara, Cal.,
Editor and Business Manager.
WALTER K. FISHER, Stanford University Cal.
HOWARD ROBERTSON, Box 55, Sta. A., Los Angeles,
Associates.

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This issue of The Condor was mailed Mar. 15.

EDITORIAL NOTES.

Value of Club Spirit. Ornithological societies are like other similar organized movements, in that they are strengthened by the unity of purpose and action of their members. Those attending the annual meeting of the Northern Division of the Club in January last could scarcely failed to have been impressed with the business-like attitude of each member present, indicating that each had some suggestion to offer or some plan to consummate, whereby the interests of the Club should be advanced.

Enjoyable as are such gatherings of ornithologists, and strong as may be the tendency to lapse into absorbing bird questions, at the meeting in question an immense volume of important business was transacted and plans were evolved which may prove far-reaching in their effects. This is a pleasant thing to contemplate, when each member takes freely upon himself a share of the Club work and responsibility, and goes forward with that energy which denotes a *purpose*.

Such is the enthusiasm and spirit which pervades the Cooper Ornithological Club today. The writer has mentioned the Northern Division merely because he may speak in person, but precisely the same energy and forces are at work in the Southern Division. The Cooper Ornithological Club is perhaps the most continuously active bird club in America today. It has a great field of possibilities before it, and its members believe that its energy is being directed in the proper channels.

Increased membership, with its consequent added moral and financial support, is desirable in all scientific organizations, and the Cooper Ornithological Club has set its mark at 200 members for the beginning of 1902. This movement will require energetic work upon the part of each member, but few doubt that it will brought about. It is expected that with such an increased membership more may be accomplished in the publishing line, and that THE CONDOR may be materially enlarged with the beginning of its fourth volume.

With the coming June the club records the eighth year of its existence and we believe that the results form food for careful thought upon the part of those who are interested in such movements. An indomitable spirit has inspired the members of the club to earnest work, and there can be no doubt that the numerous projects which the Club has in view will be successfully carried to completion. We feel that a better example of "club spirit" could not be shown than is embraced in the make-up of the present issue of THE CONDOR. Only those familiar with magazine work will fully appreciate the many details which have been contributed by numerous members to round out the magazine as a whole. We point to Vol. III, No. 2 of THE CONDOR as the embodiment of what represents an intensely loyal club spirit.

A Club Camp in the Sierras. The editor recalls a suggestion offered by a member of the Club, Mr. Loren E. Taylor of El Dorado Co., Cal., that the Club or at least its Northern Division establish a summer camp at some desirable point in the Sierra Nevada Mountains, where as many of the Club members as possible might go for recreation and scientific work each summer. With the recurrence of spring the writer is impressed that the suggestion is at least worth consideration of those ornithologists who annually indulge in vacations afield.

At this writing (Feb. 1) the balm of spring is in the air, the house finch and other common songsters of the garden are bubbling over with their pre-nuptial songs, and bursting buds already announce the reign of spring. And little wonder it is that an indefinable enthusiasm seizes hold of one, and woodland memories fleet through the mind in panoramic train! What wonder that we yearn once more to enter the woodland where the realization of the vastness of our freedom swells the soul and brightens the eye!

Who has tasted the delicious, balmy air of the pinewoods in mid-summer who would not gladly duplicate his experiences and enjoy the recreation that indeed recreates? The Sierra Nevada Mountains of California possess a a wonderfully interesting fauna, and the region itself is fascinating and restful to the person who has for a year been wrapped up in college or professional life. Here forests, mountain meadows, rushing streams and snowfields combine to form a vast and delightful study-ground for the ornithologist.

Mr. Taylor's suggestion is to the effect that a number of Club members might arrange their outings together, and by little effort build a substantial lodge in some suitable location, where it could be easily accessible for ornitholigists desiring to visit the region for a week or more. The Club could select its site from the thousands of square miles of forest land, at such altitude as would prove most interesting for scientific work. Here a substantial, permanent and entertaining camp could be established at small cost, and Club members and their friends when undecided as to their summer's outing, would probably find the camp tenanted by varying numbers of their coworkers.

The day when the ornithologist secludes himself is past. It is not presumptuous to say that the Cooper Ornithological Club has taught Californian workers the value of co-operation and fraternity. They appreciate now, more than ever before, the value of constantly and freely exchanging views with their co-workers. and it would seem that a summer camp would tend to still further foster this spirit. Let the matter be agitated and if the members of the Club believe that such an innovation would be beneficial as well as enjoyable, the coming summer is none too soon to see the suggestion in effect.

The attention of readers of THE CONDOR is called to the recent change in business management. At the annual meetings of both Divisions of the Club, the former offices of business manager were abolished and the offices consolidated with that of editor. The change was deemed expedient in view of the volume of business now being handled by the Club, the intention being to centralize the work. Under the new arrangement all dues, subscriptions and accounts are payable at the office of the editor.

We are pleased to print in another column a communication from Dr. Henry B. Ward of Lincoln, Nebr. on the subject of tapeworms in birds, especially since Dr. Ward is a recognized authority in this line. We learn that under his direction parasites have been found in over 100 varieties of birds.

The readers of THE CONDOR will be treated to a series of articles on Mexican birds during the present volume. the papers being from the pen of Mr. E. H. Skinner, whose two years residence in the state of Chiapas enabled him to gather much interesting data concerning native species. Mr. Skinner's contribution on the Giraud's Flycatcher in this issue opens the series, which promises to be of unusual interest.

Club members so situated as to be unable to attend the meetings of either Division of the Club are referred to the minutes of both Divisions as they appear in THE CONDOR from month to month. In this way they may keep informed of the work going on in the Club, which after all concerns the life and prosperity of the organization much more than the formal reading of papers at the meetings, The business sessions are the life of the Club; let the minutes of the meetings therefore be followed closely.

OBITUARY.

The following resolutions were passed by the Southern Division of the C. O. C. at its meeting held Jan. 26, 1901:

WHEREAS by the death of our esteemed fellow-member, A. L. Lapham, the Cooper Ornithological Club has lost an able and efficient member. and one of its devoted students of bird life, be it

RESOLVED by the Club assembled that we extend our heart-felt sympathy to the members by his bereaved family, and be it further

RESOLVED that a copy of these resolutions be enrolled in the minutes of this meeting, that a copy be sent to the family of the deceased and that the same be published in THE CONDOR.

* * *

A REQUEST FOR DISCARDED BIRDS' SKINS.

A number of the teachers of Oakland and Alameda have formed a class for ornithological study but are greatly lacking in material for their work. As all collectors have in hand discarded material, or that, which from one cause or another, is of small value to them, the favor is asked that they donate such material to help in the study before mentioned, as it will be of much value for that purpose.

These specimens will be used by the teachers not only for their own personal study, but in teaching the children in their classes in school. Of course I will gladly be responsible for all expense incurred in sending such material, and will promptly refund the same.

Please send to
JOHN M. WILLARD,
2221 Elm St.,
Oakland Cal.

* * *

AMONG OUR EXCHANGES.

Reginald H. Howe Jr. and Glover M. Allen announce a work on "The Birds of Massachusetts" to appear during the autumn of 1901. It is promised that the list will be complete in every detail.

The *Ohio State University Naturalist* is the title of a publication issued by the Biological Club of the University, with John H. Schaffner editor-in-chief. The initial number bears the date of November, is well printed and contains sixteen pages of interesting material bearing on zoology, botany and ethnology. The journal announces itself as "devoted more especially to the natural history of Ohio." Subscription 50 cents per year.

Nature Study is the title of a bright and interesting 16-page monthly journal issued by the Manchester (N. H.) Institute of Arts and Sciences, with Edward J. Burnham as editor. With the February issue this journal completes its ninth number, and shows evidence of prosperity. The articles are both popular and technical, covering the various branches of natural science, several interesting ornithological contributions being noted in the list. 50 cents a year.

Official Minutes of Southern Division.

NOVEMBER.

The Southern Division met on November 30 at the studio of Mr. Reynolds in Los Angeles, President McCormick presiding, with ten members present. Mrs. A. C. Wilson of North Cucamonga, Mrs. J. E. Pleasants of Santa Ana and Mr. E. D. Treadwell of Santa Monica were elected to active membership. The death of A. L. Lapham, a member of the Division, was reported, and the secretary was instructed to procure particulars. It was arranged to hold the annual meeting and banquet on Friday evening, January 4, 1901 at the home of Frank S. Daggett. A committee of two, Messrs. Daggett and Robertson were appointed to make necessary arrangements. The following officers were nominated for 1901: President, F. S. Daggett; Vice President, H. J. Leland; Secretary and Associate Editor, Howard Robertson; Treasurer and Business Manager, H. S. Swarth. A motion reviving the Life History Committee and providing for the appointment of five members was carried, the appointments to be made at the next meeting. Adjourned.

* * *

ANNUAL MEETING, JANUARY.

The Annual Meeting of the Southern Division was held on Jan. 4, 1901 at the residence of Mr. Daggett in Pasadena. Eleven members were present. Prof. Geo. Conant and Dr. Fordyce Grinnell were present as visitors. The names of Prof. Geo. Conant of Pasadena and Henry E. Graham of Riverside were proposed for membership. Mr. Grinnell read a communication from the Northern Division regarding the peculiar and complicated situation produced by the present form of having a treasurer and business manager in each Division. After discussion it was decided to abolish the office of Business Manager in the Southern Division, but to retain the office of Treasurer. The secretary was instructed to draft resolutions covering this action, and the same were adopted unanimously and ordered forwarded to the Northern Division. The resolution in substance consolidates the offices of business managers with that of the editor-in-chief who is empowered to collect and disburse all Club funds. It was also unanimously recommended that the dues of the Club be made uniformly $2. The report of the death of A. L. Lapham being verified, the secretary was instructed to draw suitable resolutions and have them published in THE CONDOR The appointment of the Life History Committee was deferred until the next meeting. Annual reports from the Secretary and the Treasurer were read and filed. The following officers were elected to serve during 1901: President, F. S. Daggett, Pasadena; Vice President, H. J. Leland, Los Angeles; Secretary, Howard Robertson, Los Angeles; Treasurer, H. S. Swarth, Los Angeles; Associate Editor, Howard Robertson. The meeting now adjourned to the banquet room where refreshments were served. The following papers were read: "Field Notes," H. S. Swarth; "Distribution of Bird Races," Joseph Grinnell; "With the Birds and Animals of Wyoming," B. F. Hahn; 'The Birds of Santiago Canyon," Miss Mollie Bryan.

* * *

JANUARY.

The Division met Jan. 26 at the studio of Roth Reynolds in Los Angeles, President Daggett presiding. The minutes of the previous meeting were read and approved. The minutes of the January meeting of the Northern Division were read. The resolutions empowering the Editor-in-Chief to collect dues etc. were ratified in form. Henry E. Graham of Riverside and Prof. Geo. Conant of Pasadena were elected to active membership. H. M. Hall of Riverside tendered his resignation which was accepted. President Daggett announced the appointment of the following committees: Life History, H. S. Swarth (chairman), Edw. Simmons, Miss Mollie Bryan and W. Lee Chambers. Program Committee: A. I. McCormick (chairman), H. G. Rising and C. A. Moody. Mr. Daggett announced that the Committee of Fifteen on Bird Protection would be announced at the next meeting. The following papers were read: "A Study of the Birds of Santiago Canyon," Miss Mollie Bryan and "Nesting Habits of the Desert Sparrow Hawk near Santa Monica," by H. G. Rising. Adjourned.

HOWARD ROBERTSON, Division Secretary.

* * *

Bird Protection Committee of the Cooper Ornithological Club for 1901.

(County given only. For full address see November CONDOR.)

NORTHERN DIVISION.

W. Otto Emerson (Chairman), Alameda; H. R. Taylor, Alameda; D. A. Cohen, Alameda; Harold Gay, Santa Clara; Wm. L. Atkinson, Santa Clara; A. J. Zschokke, Santa Clara; M. P. Anderson, San Mateo; Joseph Mailliard, Marin; Loren E. Taylor, El Dorado; R. B. Moran, San Luis Obispo; C. W. Randall, Alameda; Walter B. Sampson, San Joaquin; Jno. J. Williams, Placer; Jno. M. Welch, Tuolumne; F. C. Clark, Napa.

SOUTHERN DIVISION.

C. A. Moody, Los Angeles; Dr. Garrett Newkirk, Los Angeles; Roth Reynolds, Los Angeles; Geo. S. Chambliss, Los Angeles; Dr. G. V. Coffin, Los Angeles; Miss Mollie Bryan, Orange; Mrs. J. E. Pleasants, Orange; Mrs. A. C. Wilson, San Bernardino; Evan Davis, Orange; Edw. Simmons, Los Angeles; J. Eugene Law, Los Angeles; B. W. Hahn, Los Angeles; H. J. Leland, Los Angeles; Lee Chambers, Los Angeles; A. M. Ingersoll, San Diego.

VOLUME 3. NUMBER 3.

MAY-JUNE 1901.

THE CONDOR.

Cooper Ornithological Club. Santa Clara, California.

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Pacific Coast Avifauna, No. 2! Just Out!

An Annotated List of the Land Birds of Santa Cruz Co., Cal., by RICHARD C. McGREGOR, embracing 139 species, with Faunal Description by WALTER K. FISHER. 21 pages; price 25 cents.

Pacific Coast Avifauna No. 1: "Birds of the Kotzebue Sound Region, Alaska," by Joseph Grinnell may also be had at the original price of 75 cents. This 80-page memoir of Arctic birds has attracted pronounced attention because of the excellence of its text. J. A. A. in a review in *The Auk* says "Mr. Grinnell's paper is thus a most valuable contribution to Alaskan ornithology." L. B. B. in *Bird-Lore* remarks: "In this paper Mr. Grinnell presents the most important contribution to the life-histories of Alaskan birds that has appeared in recent years."

Either Nos. 1 or 2 of the *Pacific Coast Avifauna* series will be mailed prepaid upon receipt of price, or both may be had for 80 cents, when ordered together. This is the opportune time in which to procure the first two publications of this series of Cooper Ornithological Club publications.

Address all correspondence, and make remittances payable to

C. Barlow, Editor & Business Manager, SANTA CLARA, CAL.

THE CONDOR.

Bulletin of the Cooper Ornithological Club.
A Bi-Monthly Exponent of Californian Ornithology.

Vol. 3. No. 3. Santa Clara, Cal., May-June, 1901. $1.00 a Year

A Season With the Golden Eagles of Santa Clara Co., Cal.

By Rollo H. Beck, Berryessa, Cal.

With photographs by the author.

While reading this evening in the September-October Condor of the editor's wanderings among the birds, my thoughts instinctively wander back to memories of spring-time, and to happenings that befell me while in quest of the aeries of *Aquila chrysaetos*, familiarly known as the Golden Eagle. As the pocket-worn note-book opens what different scenes are recalled! The first note under 1900 was written in the shade of a tall old pine from which I had just descended with two fresh eggs, while the eagles sat on a fence a mile away across the canyon and enjoyed the magnificent scenery, not knowing of my presence.

Under date of March 8, my second entry, my thot's are turned to a spot miles away. After climbing for hours up a steep mountain side surrounded by fog and wet clothes, the nest is found torn down, but as I slide and scramble down, with regrets for the long climb, back to the wagon, an eagle flies from a nest in a small sycamore in the bottom of the gulch but a few rods away. The hills are so steep, that a careful inspection is made with the aid of glasses at a distance of forty yards and the nest is seen to be lined with fresh leaves and ready for eggs. With high hopes I returned to this nest a week later and found the bird sitting on a limb of a near-by oak contemplating the nest which still contained the fresh lining, but no eggs.

On the 9th of March with an early start my third nest was reached about noon. It was located forty feet up in a small oak, surrounded by a tangle of poison oak and other bushes. Owing to the steepness of the hill a good negative was obtained of the bird on the nest at a distance of 60 feet, by using the long-focus lens. This picture and set of two eggs but partially recompense me for all the time and trouble necessary to obtain them. Had it been the eagle's picture instead of a Western Horned Owl's, which occupied the nest, the recompense would have been ample! But one gets used to these things after they happen every few days through the season.

At four o'clock that afternoon I sat eating my lunch a quarter of a mile below an eagle's nest built in a white oak on another steep hillside. This nest was 75 yards below the old nest which was situated in a lofty sycamore and visible for miles. While debating whether 'twas worth while to climb up to such an exposed nest, the male bird

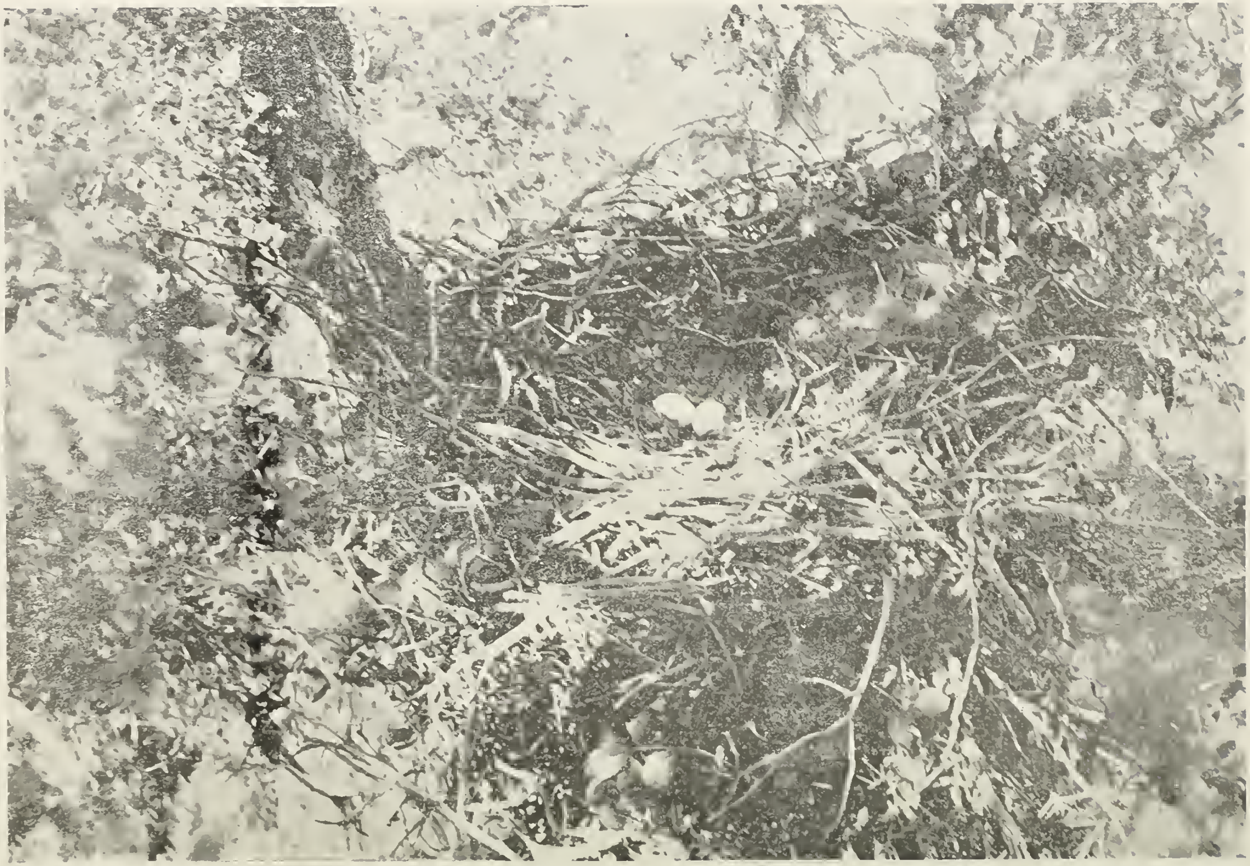

Plate I. Nest and Eggs of the Golden Eagle (*Aquila chrysaetos.*)

sailed over me and slowly up the hill, over the nest, and on out of sight. I followed with camera, climbers etc., mmediately. After maneuvering up and down hill for the best site to plant he camera, the spot was selected. With the sky for a back-ground I determined to have a fine picture of the eagle leaving her nest. Setting the shutter for 1-25 of a second, I threw a rock and shouted at the bird on the nest, and waited expectantly. Though I had been in plain sight looking at her with the glasses while she laid low in he nest watching me, she seemed not to be frightened but stood up in the nest, silhouetted against the sky, shook herself thoroughly and sailed out across he canyon. The bulb was pressed and on developing the plate that evening no eagle was to be seen. This was disappointing after such an excellent chance, but we live and learn.

On the 12th of March a visit was made o a nest built last year in which one egg was hatched. As I was reasonably sure of a set of eggs, and as the nest vas but a mile or so from the wagon road, the start was made with both cameras, a 4x5 'Midget' and a 5x7 Premo'. I had had made especially for his event two iron braces to nail onto he limbs, with a slot for the camera screw, and had intended to take a picure of myself up the tree taking a picure of a set of eagle's eggs *in situ*. This would undoubtedly have been ineresting but here again my plans balked. One of the camera screws had been left at home in the pocket of an old pair of pants.

Therefore but one camera could be used at a time. The result of the picure is seen in Plate I. About an hour vas spent in the tree climbing up and lown to pull aside limbs and twigs that obscured a full view of the eggs. Then t was necessary to take the camera lown and climb back after the eggs. As it was only one o'clock I hied me over the hills and far away to another pair of birds which had caused me much hard climbing in a rough canyon to find their nest. Two years ago as I lay resting, after losing sight of two pairs of birds, the female suddenly swooped by me up to her nest. Search as I would no nest was found. Last year one day about noon found me on the ridge high above an eagle slowly circling about. As the view was perfectly open I watched him and soon saw below him the female flying up the canyon from around a little point.

This confirmed my suspicions and a long, close search revealed finally an old dilapidated nest in an oak tree. After looking at it a few minutes, as a forlorn hope I climbed to it and was greatly astonished to find two eagles' eggs. This year I headed for the same nest, but before reaching it located a new nest in a pine tree one-quarter of a mile above it. This contained but one egg, slightly incubated. After gazing at it long and earnestly it was placed in my basket, as the possibility of getting another was not worth the time and hard work of going for it.

Slipping and sliding thro' sage brush, scrubby trees and poison oak the spot was finally selected as the best available from which the picture in plate II was taken. This shows fairly well the nature of the country where most of my nests are found, though it would be shown better were the two small pines not so much to the front. On my return journey a tree containing two nests, from each of which I had taken eggs in former seasons, was passed.

They were both deserted but the birds were seen sailing about their usual haunts. Bright and early the next morning my way led for miles up and down ridges and canyons with cameras loaded with plates and rosy anticipations of two more sets awaiting me. The first nest was reached about 12 o'clock. This was in an old pine 80 feet up, where two birds were hatched last year. That fact, in my estimation, augured favorably for this year. With camera over my shoulder, up I climbed

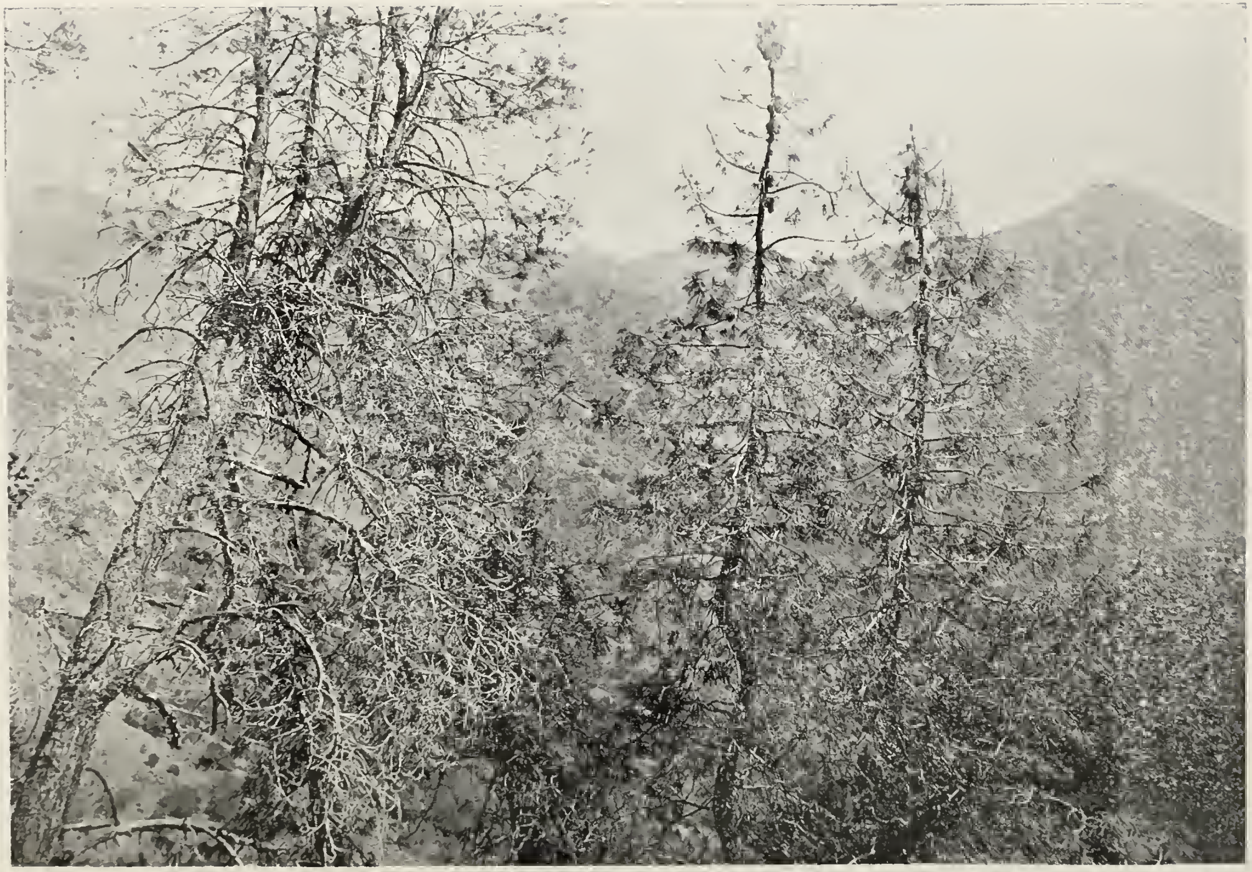

PLATE II. A DIFFICULT NEST, SHOWING THE RUGGED NATURE OF THE COUNTRY.

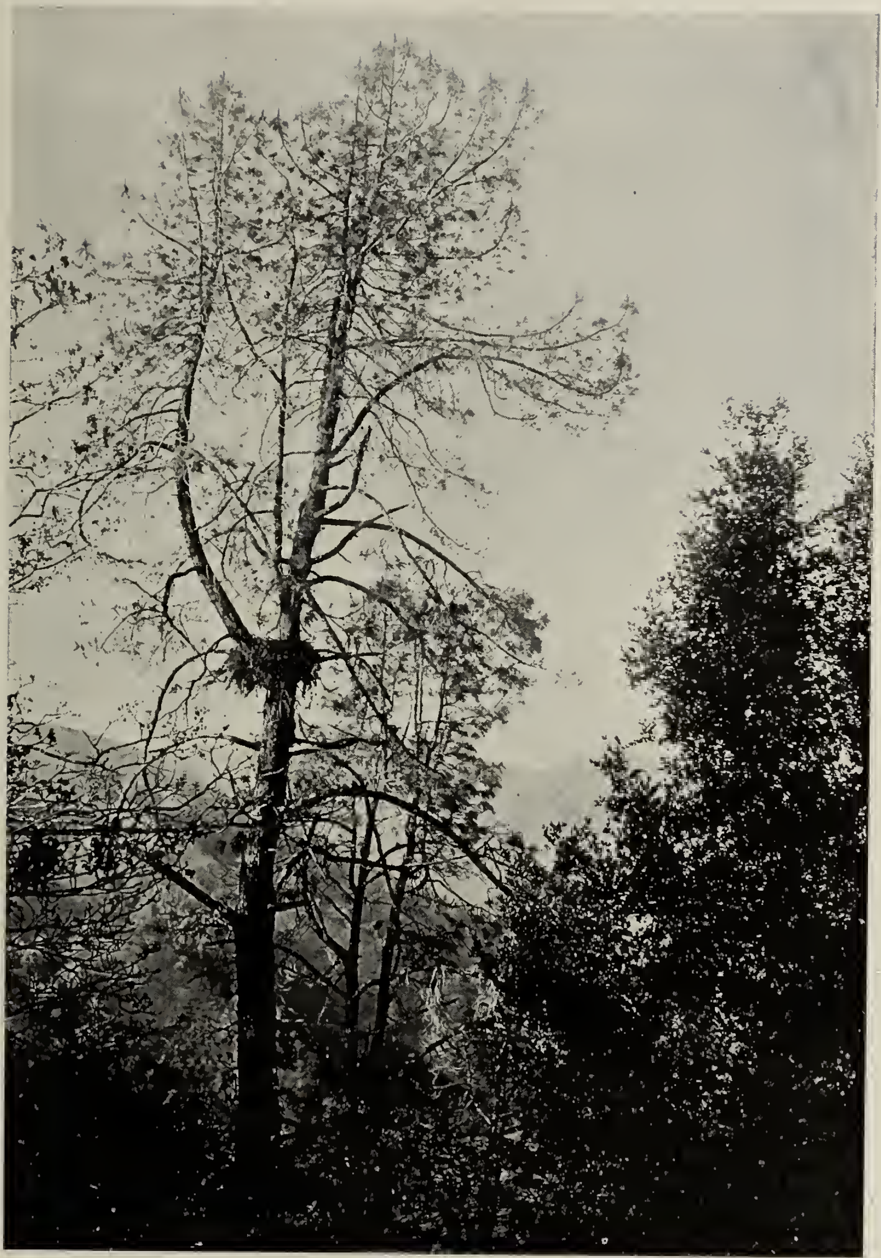

PLATE III. TYPICAL NEST OF THE GOLDEN EAGLE IN A PINE.

thirty feet to the first dead limb which contained colonies, large ones, of a black ant. Between the bites of the ants, the camera would slip around under me and impede my progress. My trip up to that nest and back to *terra firma* would have been immensely interesting to a disinterested observer seated a short distance from the tree. *My* sole interest lay in getting down as quickly as ants and camera would let me when I found no eggs in the deserted nest. After getting a picture of this nest and eating lunch the tramp was resumed and about three o'clock I was standing in a small oak tree looking down into my second nest, at two eggs which were finally collected after a hard climb.

This nest was also in a pine on another one of those steep hillsides which seem to be selected so often by the birds in this locality. Owing to brush, trees and slope of ground it was impossible to obtain a full-length view of any trees holding nests. Plate III shows a typical eagle's nest with typical background in the distance. The set on the 13th was taken from here. Last year one egg was laid and hatched in this nest. Just as I stopped to look at the nest for the last time this year at 50 yards distance, the male flew to it with a squirrel in his claws. He looked at the nest, called several times, looked earnestly across the canyon, and then, happening to turn around and see me, quickly took wing and sailed away.

On the 15th of March I mounted my wheel and started on a 75-mile ride to visit two nests discovered on a hunting trip a month before. Passing through a narrow valley and over a mountain range four pairs of birds were seen, one pair of which I determined to investigate on my return trip, which was done. It was high noon when investigations were commenced. The birds were circling about the usual place, the female having evidently just left the nest. Several inviting-looking gulches with but few trees lured me on around one hill after another. As I'd go over a ridge and glance back there were the birds watching unconcernedly, a half-mile away. When my desire for the set of eggs had vanished under the hot sun and rough climbing, the wheel was mounted and the birds still circled about in their accustomed haunt. It was decidedly annoying, yet no more so than to climb to a nest the eagle had just left and find no eggs. This had been my luck the day before at the end of a long day's ride. Think of it; 75 miles and return by wheel to look into an old eagle's nest and the composition no different from one that could have been reached in an hour from home! The nest was all ready for eggs which would have been mine had the trip been delayed a week. I trust she hatched and reared her young successfully.

An hour before inspecting this nest another one was visited and yielded its two eggs to my basket. This nest was the kind to dream about,—a regular Taylor-Barlow situation, where you step on to a limb and gaze delightedly at the nest and the treasures contained therein, 35 feet up with limbs plentiful enough to serve as a ladder; what more could one want than to have the small boys of the neighborhood unacquainted with its whereabouts? But this 'long-felt-want' of Sargents and other places is not felt here. Quite the contrary. Soon after collecting the set I passed one of the small boys on his way home from school and tackled him on the subject of eagles' nests. He had passed it a week before going up the ridge and had "*seen the hen on the nest*"! An incident of this character reconciles us to many of the shortcomings and disappointments we meet with so often, and keeps alive the spirit that draws us to the hills and to the mountains as each succeeding March comes round.

⁂

Fred M. Dille, the well-known Denver ornithologist, has removed to Altona, Boulder Co., Colo., which we trust will prove an inviting collecting field.

The Pacific Coast Yellowthroats.

By Joseph Grinnell.

Geothlypis trichas scirpicola—new subspecies.

Tule' Yellowthroat.

Subsp. Char.—Similar to *Geothlypis trichas occidentalis*, but brighter colored and larger throughout, with especially longer tail. Twenty-five males from the Pacific slope of Los Angeles County measure in inches: Wing, 2.18 (55 mm.) to 2.37 (60.3 mm.) averaging 2.25 (57 mm.); tail, 2.22 (56 mm.) to 2.52 (64 mm.) averaging 2.35 (60 mm.). Prevalent primary formula in unabraded specimens, 4-3-5-2-6-1-7-8 or 4-3-2-5-1-6-7-8.

Type—♂ ad.; No. 2217, Coll. J. G.; El Monte, Los Angeles County, California; March 20, 1897; Collected by J. Grinnell.

Habitat—Permanently resident in the fresh-water tule beds of the southern coast district of California.

Geothlypis trichas sinuosa—new subspecies.

Salt Marsh Yellowthroat.

Subsp. Char.—Similar to *Geothlypis trichas occidentalis*, but dorsally and laterally darker in color, and size much less. Thirteen males from the marshes of San Francisco Bay measure: Wing, 2.02 (51 mm.) to 2.15 (54.6 mm.) averaging 2.10 (53 mm.); tail, 2.08 (52.6 mm.) to 2.23 (56.6 mm.) averaging 2.16 (55 mm.). Prevalent primary formula in unabraded specimens, 4-3-2-5-1-6-7-8 or 3-4-2-5-1-6-7-8.

Type—♂ ad.; No. 4270, Coll. J. G.; Palo Alto, California; May 31, 1900; collected by J. Grinnell.

Habitat—Permanently resident about the salt marshes of San Francisco Bay and vicinity.

Remarks—A third form occurs abundantly in parts of California during the spring and fall migrations. It appears at Pasadena during the latter part of April, often after the resident yellow-throats are caring for nearly fledged young. This migratory race is evidently the form summering on the Pacific slope from Central California to British Columbia, and has been named *Geothlypis trichas arizela* by Oberholser (Auk XVI, July 1899, p. 257). The birds obtained at Pasadena in April, were found in the brush along the foothills far from water, and were in company with the Tolmie, Townsend, Calaveras and Pileolated Warblers, Warbling Vireos, Western Flycatchers and many other migrating species. The specimens secured are somewhat smaller than *scirpicola* and *occidentalis* and yet considerably larger than *sinuosa*, their average measurements being: Wing, 2.18 (55 mm.); tail, 2.28 (58 mm.). The wing is more pointed than in either of the others, the primary formula being 2-3-4-5-1-6-7-8 or 3-2-4-5-1-6-7-8. *Arizela*, therefore, is the migratory race, moving south in winter to Lower California, Sinaloa and Tepic (*fide* Oberholser, l. c.).

I find it difficult on account on the variations due to age and season to assign color characters to any of our Yellowthroats. *Scirpicola* is the brightest and deepest colored of all, the yellow of the under parts being more extended posteriorly and having a hint of an orange tint, while the upper parts are brighter brown or green according to age or wear; in these respects, as well as in size, showing a pronounced tendency toward *beldingi* of Lower California. *Occidentalis*, as judged from Arizona examples, is palest, while the diminutive *sinuosa* is decidedly the darkest. The width of the frontal black and vertical white bands varies in different individuals, but as a rule it is narrowest in *arizela* and *sinuosa*.

It is of interest to note the correspondence in characters of certain bird races occurring on the marshes of San Francisco Bay and on those of Southern California. The former locality produces the small *Melospiza melodia pusillula*, *Am-*

modramus sandwichensis bryanti and *Geothlypis trichas sinuosa;* while from the southern marshes come the larger *Melospiza melodia cooperi*, *Ammodramus sandwichensis beldingi* and *Geothlypis trichas scirpicola.* It is also notable that the races of *Geothlypis trichas* occurring on the Pacific Coast are to a remarkable degree parallelled by those of the Atlantic Coast (See Palmer, Auk XVII, July 1900, pp. 216–242.)

In bringing together the material on which this paper is based, I am indebted for the loan of specimens to Messrs. F. S. Daggett, H. S. Swarth, W. O. Emerson and T. J. Hoover.

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Some Rare Birds in Los Angeles Co., Cal.

PHOEBE (*Sayornis phœbe*). On Feb. 14, 1901, I secured a male of this species near San Fernando. Not feeling certain as to its identity and having no specimens of my own with which to compare it, I sent it to Washington, where it was identified as *S. phœbe* by Dr. Chas. W. Richmond.

Slate-colored Sparrow. (*Passerella i. schistacea*). A female sparrow taken by myself at Millard's Canyon on Feb. 11, 1901 is identified, also by Dr. Richmond, as belonging to this subspecies. One other, also a female, taken by myself at Los Angeles and recorded by Grinnell in his 'List of Birds of the Pacific Slope of Los Angeles Co.,' is I believe, the only one heretofore recorded from this part of the state. Another sparrow, a male, taken at Los Angeles Nov. 24, 1900 is described by the same authority as the last, as intermediate between *Passerella iliaca* and *P. i. schistacea*. This bird is rather sparsely spotted underneath, the throat and abdomen being immaculate, and the spots are of a brighter fox red than in the case of *P. i. schistacea* or *P. i. unalaschcensis*.

Flicker. (*Colaptes auratus*). I secured an adult female of this species at Los Angeles on Feb, 20, 1901. It was feeding in a pepper tree in company with several Red-shafted Flickers and was rather wild, in fact I had considerable difficulty in getting close enough to it to get a shot.

Besides these stragglers from the north and east, I have seen all through the past winter birds more or less common in the higher mountains, but rare or unknown at an altitude as low as the city of Los Angeles. On Nov. 14, 1900 I shot a female Williamson's Sapsucker (*Sphyrapicus thyroideus*); on Feb. 2, 1901 a female Townsend's Solitaire (*Myadestes townsendi*) and on Feb. 18 a male Red-naped Sapsucker (*Sphyrapicus varius nuchalis*). All these birds were feeding in pepper trees and within 50 yards of the same place. For the last two months Cassin's Purple Finch (*Carpodacus cassini*) has been quite abundant, feeding in pepper and willow trees. Nearly all that I have seen have had the plumage of the lower parts badly stained and gummed together, being often nearly black on the throat and breast.

Last week, April 15, I saw a flock of about two dozen Pine Siskins (*Spinus pinus*) feeding in some tall mustard, clinging to the top of the stems. I shot three and when I passed the spot several hours later the flock was still busily feeding. The three that I shot had their crops filled with plant lice, with which the wild mustard seed is covered. It struck me as rather an unusual diet for these birds. H. S. SWARTH.

Los Angeles, Cal., April 22, '01.

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Harry R. Taylor made an interesting take on April 14 of White-tailed Kite ½. We say "interesting," inasmuch as Mr. Taylor mentions that his pulse registered 140 beats per minute when he reached *terra firma!* Verily the spirit of olden days has not forsaken H. R. T!

Evolution in the Breeding Habits of the Fulvous Tree Duck.

FOR the preparation of this article I am indebted to Mr. H. Wanzer, chief engineer for Miller & Lux, and C. W. P. Smith, a local collector of some note, both of Los Banos, for my information on the breeding habits of this species from its first appearance in Merced county, until last season when I spent three months collecting in that locality.

Mr. Wanzer states that *Dendrocygna fulva* was first brought to his notice in June 1895, and that they have returned each subsequent season, arriving about the first of June, and that they did not seem to increase until about 1898, but since that time have increased with such rapidity that they now are common summer residents in the irrigated districts around Los Banos.

From time to time since 1895 pothunters have told wonderful stories of finding large numbers of eggs piled up on bunches of dead grass and on small knolls that rose above the water in the swamps. The number of eggs in these nests ranged from 30 to 100 or more, according to report, and in not a few cases the finder has brought the eggs with him in order to prove that what he said was true.

About the 15th of June 1896, Mr. Wanzer found a nest, if such it would be called, in Camp 13 swamp, containing 62 eggs. The eggs were placed on a pile of dead grass which had drifted together about four inches above the water, and looked as if someone had emptied them carefully out of a basket, there being no attempt at nest-building or concealment. Mr. Wanzer took twelve eggs, three of which are now in the collection of W. H. Hayes of Los Banos, and the other nine he placed under a hen, five of them hatching.

He states that the young were black with a white band around the neck. A pen was built for the purpose of watching them mature, but they all died within a week. I saw quite a number of the young last season but failed to observe the white band of which Mr. Wanzer speaks. The young are very difficult to get as they always make for the tall grass at the edge of the water at the slightest noise. Those that I procured were partly feathered and probably too old to show any indication of the white about the neck.

I found from inquiry among local collectors and hunters that no one is positive of seeing any young of this species until the last two or three seasons, and I was unable to find anyone who had found one of these large clutches last season. Most of the hunters agree that the large clutches are becoming very rare, which goes to show that instead of colonizing and laying from 30 to 100 eggs in a set without any attempt at nest-building and just out of the water on floating vegetation similar to the coots, they are becoming civilized and are nesting similarly to other species of ducks.

There may be a few silurians that still persist in colonizing, but if so, they failed to come under my notice last season. While I have heard a great deal about the eggs being incubated by the heat generated from decaying vegetation, I have been unable to find anyone who is positive of any of these large clutches being incubated by this process, so I think I can safely say that it is a mistaken idea with regard to the Fulvous Tree Duck, from the fact that there is no authentic data of anyone seeing young of this species until the past few years. Also there was no perceptible increase in numbers until they had quit colonizing.

I collected five sets of eggs of this species last season and in every instance the nest was placed on dry ground and so well concealed that it would be very hard to find without flushing the old bird. I found this duck not a very close setter, it generally flying when I was 20 or 25 feet from the nest. I took my first set on

April 28, which is very early as they usually do not arrive before June 1, and it contained fifteen fresh eggs. The nest was placed in a bunch of wire grass fully 500 feet from water and was very well built of fine wire grass and lined with a few feathers (not down) apparently from the breast of the bird. This nest was very well concealed.

I took my second set on May 5, consisting of ten fresh eggs; third set May 6, containing seventeen eggs, slightly incubated; fourth set, May 13, containing fourteen fresh eggs, and the fifth set on May 14, containing eleven eggs, incubation advanced. All the nests were similar to the one found April 28, except the one on May 13 which contained no feathers, but all were well built, very well concealed and ranged from thirty to thirty-five feet from the water.

Mr. Smith informs me that he has found nests of this species in grainfields fully one-half mile from water, which goes farther to prove that we may look forward with no serious apprehension to the Fulvous Tree Duck becoming extinct, now that they are returning to the old and time-honored mode of incubation and have given up the idea of co-operative colonies.

Oakland, Cal. F. S. BARNHART.

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Capture of a Floresi's Hummingbird at Haywards, Cal.

ON FEB. 20, 1901, the first return movement of bird-life from the south began at Haywards, Cal. About four o'clock in the afternoon of that day numberless hummingbirds began to buzz around a mass of flowering aloes, which bore long spikes of vermillion-colored flowers. I first noticed five male *Calypte anna* sucking the honey from the tube-like blossoms with apparent enjoyment, and they were presently joined by a male *Selasphorus alleni* which I shot.

A half hour later I saw what, at first glance, seemed to be a hybrid—apparently a Rufous-like Anna's Hummingbird. The rufous-edged tail and under wing coverts showed a bird of which I knew nothing. Soon I had it in hand and was more puzzled than ever by its crimson or rose-red helmet and throat patch. I at first took it to be *S. platycercus*, but upon comparison my specimen proved rich in coloring beyond any hummingbird I had ever collected, and subsequent examination proved the bird to be none other than the Floresi's Hummingbird (*Selasphorus floresii*).

It has been suggested that this spring capture of *S. floresii* in California would indicate that the species is a summer resident of some portion of the Pacific Coast, but no female of the species having yet been recorded, its breeding range remains to be yet determined. Mr. Robert Ridgway mentions that this species of hummingbird is so rare that only two known examples have been recorded, both males, and that the female, as also its range and breeding habits, are unknown.

Mr. Gould described the type specimen as having been found at Bolanos, Mexico, by Mr. Floresi who gave it to George Loddiges, Aug. 11, 1845, the specimen being now in his collection. My specimen corresponds fully with Mr. Ridgway's description and is a male in full adult plumage. No data is given with the specimen recorded by Mr. Walter E. Bryant in *Forest & Stream* (XXVI, p. 426), so we are in the dark as to what time of the year his specimen was taken in California.

W. OTTO EMERSON.

Haywards, Cal., March 4, 1901.

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[1] Report U. S. Nat. Museum, 1890, p. 341-313.

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Forrest S. Hanford of Oakland, Cal. lef April 30 for Carson City, Nevada., via. Placerville. Mr. Hanford will travel leisurely fron the latter place to Carson City over the Lak Tahoe road, collecting enroute, and will jou F. J. Steinmetz, the well-known Carson orni thologist, on a summer's outing.

Bird Notes from Placer County, Cal.

VARIED Thrush (*Hesperocichla nævia*). In the *Oologist* for January, 1901, Wm. L. Atkinson notes the occurrence and disposition of this bird as he finds it in Santa Clara, but the habits of the birds here are so different that I give my notes by way of comparison. These birds arrive here about the end of October and seeking the seclusion of the dark, heavily wooded canyons or hillsides, are rarely seen outside of them. I have occasionally seen and secured specimens in the alders or brush along water-courses but have never found them within 1500 yards of dwellings. In the wooded districts they may be found in small bands of six or more, finding their insect food usually among the fallen leaves and twigs. Later on in the spring they resort to the brushy side hills for manzanita blossoms and at such times leave their insect diet. Even in the darkest canyons they are shy and appear unused to the sight of human beings, peering at them curiously and flying away with harsh, mournful cries as if they were outcasts in a land of plenty. Their vocabulary is much less varied and not as musical as that of the Western Robin. The latest date I have recorded a specimen of the Varied Thrush is on March 23 of this year, when they became scarce and soon left.

California Thrasher. Having read a good deal about the vocal powers of *Harporhynchus redivivus*, with little in commendation of the bird's ability to imitate the songs of other birds, I would like to pronounce a few words in his favor. Though he cannot compete with *Mimus polyglottos* he, in a more fragmentary manner, does imitate parts of other birds' songs. Audubon says that when these birds are happy they sing at their best and although I have infrequently heard them singing in light snowstorms, still the sunny days of spring are the time to hear them. Among the common and most perfect imitations of bird songs by the thrasher are "quare, quare, quare," the usual cawing note of *Aphelocoma californica*; the quirring note of *Sitta c. aculeata* and the cackling note of *Colaptes cafer*. Then at times I have heard the pleasant trill of *Chamæa fasciata*, imitated so perfectly that wrentits have replied to it similarly. The note of *Lophortyx c. vallicola* is imitated well, but for some reason very rarely; and the "kwee-kwee-kuk" of *Merula m. propinqua* makes one search the trees for the bird. The imitated notes are always woven into the thrasher's own song, for nearly every thrasher has an individual song or songs and the rapid succession of individual notes and imitated ones makes it difficult to separate and distinguish the one from the other, which may account partially for the few people who consider this bird to be an imitator.

American Pipit. The occurrence of *Anthus pensilvanicus* here is of very short duration, in the spring at least, for they arrived this year on February 26 and had passed on by March 21 and have not been seen since. Judging by their absence in previous years they are not very common in this section at any time, but on March 8 I secured an adult male out of a flock of 25 or more, after considerable trouble. They were feeding in summer-fallowed ground along the side of a small creek and kept flying ahead as we approached. They spent most of their time feeding in the bottom of the furrows, out of sight, usually walking rapidly. Their flight is undulatory and seemingly not strong.

JOHN J. WILLIAMS.

Applegate, Cal.

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The *Wilson Bulletin* is now issued from Berwyn, Pa. and Frank L. Burns assumes editorial control. The *Bulletin* has grown into an excellent and substantial publication under the supervision of Professor Lynds Jones and if the announced policy of its new management is followed out, we bespeak for the magazine a still greater field of usefulness and influence.

Midwinter Birds at Barstow.

BY JOSEPH GRINNELL.

THE SIXTH of January, 1901, I spent at Barstow, a Santa Fe' Railroad Station on the Mojave Desert of southeastern California. The country in this vicinity is hilly and particularly barren of vegetation. All the birds observed were along the Mojave River, at this date merely a creek, which one could clear at a jump. Along this stream are stretches of alkali grass flats, with here and there thin willow patches and scattered cottonwoods. The day was very windy, and consequently rather unfavorable for collecting. Perhaps 175 birds were seen altogether during the six hours of active observation. These consisted of the following thirteen species.

1. **Accipiter velox.** Sharp-shinned Hawk.

One individual seen among the cottonwoods.

2. **Colaptes cafer collaris.** Red-shafted Flicker.

One individual,

3. **Sayornis saya.** Say Phœbe.

One individual flying along the River.

4. **Sturnella magna neglecta.** Western Meadowlark.

A single silent individual flushed from a grassy meadow by the River.

5. **Carpodacus mexicanus obscurus.** House Finch.

The House Finches were the most abundant of the birds at Barstow. They kept for the most part close about the buildings in the manner of English Sparrows. But a few were to be found in the reed patches of the River bottom. Both these and the Gambel Sparrows had probably been in this vicinity constantly for many weeks, for they were much blackened with coal smoke. Their general appearance from a distance was thus so different from the ordinary that I at first shot several when partly obscured among the brush, thinking them some unfamiliar species. The specimens secured are uniformly and evenly blackened over the whole plumage, the resulting coloration being quite odd. In a male House Finch the parts of the plumage normally red are a deep burnt carmine color. In an adult Gambel Sparrow, the anterior parts have a dark plumbeous caste. This sootiness of plumage has been previously observed in several species taken about smokey railroad towns. (Cf. McGREGOR, *Condor* II, Jan. 1900, p. 18). I am tempted to believe that the *Parus gambeli thayeri* (BIRTWELL, *Auk* XVIII, April 1901, p. 166), described from Albuquerque, is based on just such adventitious characters.

6. **Zonotrichia leucophrys gambeli.** Gambel Sparrow.

Fairly common in the brush of the River bottom.

7. **Anthus pensilvanicus.** American Pipit.

One individual at margin of the stream.

8. **Thryomanes bewicki drymœcus.** [Vigors Wren].

The single specimen secured appears to be quite like birds from the San Joaquin-Sacramento Valley, and was evidently a winter straggler to this locality.

9. **Sitta carolinensis aculeata.** Slender-billed Nuthatch.

I was heedlessly striding along a desolate wash, making for a di tant clump of bushes, when I was abruptly recalled to attentiveness by a succession of sonorous raps, startingly plain even above the swish of the wind. Tracing this woodsy sound over into the next arroyo, I located the drummer, diligently pegging away at the stretched hide of a dessicated horse carcass. Here the forlorn bird was evidently trying to strip a meal from this impregnable cache of natural jerky. I watched him awhile; but, pitying the poor Nuthatch lost in this land of starvation, I humanely secured him from further privation. Which even a tender-hearted Audubonist might not have done!

10. **Auriparus flaviceps.** Verdin.

Two specimens were obtained and three others seen, in each case keeping shyly to the cover of the thickest bushes. The only notes heard were faint attenuated ones, like the repeated "tsip, tsip" of the female Anna Hummingbird. Verdins' nests were numerous wherever there were thorny bushes, being situated from one to eight feet above the ground. There were sometimes three in a single bush. These nests are very durably constructed and must last many years, thus accounting for their abundance as compared with their builders. The walls consist of firmly interlaced twigs from the thorn bushes. The nests are flask shaped, resembling miniature cactus wren's nests, but fixed among the supporting branches with the opening rather more downwards than to the side,

11. **Regulus calendula.** Ruby-crowned Kinglet.

A lone ♀ obtained.

12. **Merula migratoria propinqua.** Western Robin.

Two individuals were flushed before sun-rise from the margin of the River.

13. **Sialia mexicana occidentalis.** Western Bluebird.

Two flocks, of 8 and 13 respectively, were noted flying down the valley high overhead.

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Some Winter Notes From Marin County, Cal.

BY JOSEPH MAILLIARD, SAN GERONIMO, CAL.

THE PAST winter has been remarkably mild for this vicinity. We have had abundance of rain but very little cold weather. Instead of periods of frosty mornings, when the registering thermometer would show a minimum of any where between 12° and 22° day after day, there have been but few severe frosts and then only for two or three days at a time. This mildness seems to have affected the bird life to a considerable degree.

Some species which are seldom seen here in winter have been comparatively common. In my list of land birds of Marin County, (THE CONDOR II, No. 3) Thick-billed Sparrows, (*Passerella i. megarhyncha*,) and Townsend's Solitaire, (*Myadestes townsendi*) are mentioned as occurring only in very cold winters. The past winter has proved an exception to this rule, as the former species was here in limited numbers and the latter was more numerous than ever before noted. This state of affairs may have been occasioned more by the heavy snow-fall in the Sierras than by the mildness of the temperature in this locality.

The Western Evening Grosbeak (*Coccothraustes v. montanus*), seems to have been quite common all along the coast this year and several small flocks were noted about here and in San Rafael. Golden-crowned Kinglets (*Regulus s. olivaceus*) have been very numerous and several specimens of each sex have been taken, whereas my last record of this species in midwinter was in 1895. Heretofore observation has led me to believe that most if not all, of the Ruby-crowned Kinglets, (*Regulus calendula*) wintering here were ♂ ♂, as I had never taken a ♀, but this winter has been an exception to this rule also, as the two sexes seem to have been about equally represented.

Owing to the fact that the San Geronimo Valley is usually much colder in winter and spring than the adjacent country on the eastern side of the compassing hills, many spring immigrants appear on the eastern slope of this range some days before they are seen here. I have heard Lutescent Warblers (*Helminthophila c. lutescens*) for instance two miles east of my house, but over the range, a couple of weeks before hearing them here. This winter however has been so mild that there were practically no local differences in temperature. The buckeye trees leafed out on both sides of the range simultaneously which never happened before in my recollection. In consequence of these unusual conditions this spring the Lutescent Warblers appeared in numbers in this valley without having dallied on the other side of the divide. Before March 6 I had neither heard nor seen a single specimen between here and San Rafael, but on the morning of that day they were piping away merrily on all sides.

Usually they have seemed to drop in by twos and threes, becoming more numerous as spring advanced, but this year they came in a wave. My earliest record before this was on the east side of the range Feb. 15; San Geronimo March 1, of the same year, 1896. It is an open question as to whether the movements of these birds at this time depend upon the temperature itself or upon the food supply as affected by it. On January 26 of this year I noticed near my stable a strange sparrow among a flock of Zonotrichias and Juncos that feed around the buildings all winter. I could not identify it at the moment, but went at once to the house for a gun. On returning I saw through an open window another strange bird which could be nothing else than *Zonotrichia albicollis*. It was on a willow limb overhanging a bank, and too close to shoot even with the auxiliary, but fearing that it might be difficult to find again among the other species I aimed a little to one side and dropped it. Unfortunately it must have been only crippled as it utterly disappeared before I reached the bank down which it fell.

This was an adult bird in apparently fine plumage. My disappointment was great and being needed elsewhere there was no time to search for the first stranger. However in the afternoon several visits were made to the stable and finally the capture was achieved. This proved to be another *Zonotrichia albicollis* in the first winter plumage and a new record for Marin county.

Another interesting take was that of a specimen of Passerella which approaches very closely to *iliaca* proper, having the back somewhat streaked, the wing coverts distinctly tipped with whitish and the breast and lower parts very much lighter than in *unalaschcensis*. I also came upon another still lighter and nearer *iliaca*, while riding through some low brush. This one was not more than six feet from me, but escaped before I could back away far enough to shoot. I have looked for years for intermediates of this sor in this locality, but never found one before.

On Jan 16, a ♂ Ruddy Horned Lark (*Otocoris a. rubea*) was taken on top of our range of hills in open ground and a ♀ Short-eared Owl (*Asio accipitrinus*) in some low brush close by. The latter seemed very much out of place among rocks and chapparal on top of the hills as I had always associated this species with marshes and lowlands.

The California Thrasher, *Harporhynchus redivivus*, was mentioned in my list as having been heard but never seen in this county. On Feb. 27, last I distinctly and unmistakably heard one of these birds singing his best in the midst of a dense mass of chemisal on a steep hillside about three miles from my house, but was as heretofore unable to catch a glimpse of the songster. It will be interesting to see whether the mildness of the winter will have any effect upon the regular spring migrations later on.

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R. B. Moran of San Luis Obispo, well known as an active ornithologist, has registered at Stanford University, whence THE CONDOR expects to hear from him.

The Guadalupe Wren.

WHAT may have been the zoological condition of Guadalupe Island at the time of its discovery will probably never be known, but that it was to the botanist and zoologist a spot of surpassing interest and strikingly different from the island of today cannot be disputed. It was in 1875, when visited for the first time by a naturalist, found to be wonderfully rich in both plant and animal life. Not only were the species largely peculiar to the island and quite different from their mainland representatives but botanical genera were found that have since become extinct. It is not unlikely that changes of importance had already taken place since the island became inhabitated by man, but such changes must have been largely confined to the flora and it is improbable that any birds had been exterminated up to that time.

I have at the present writing no means of ascertaining when the domestic goat was introduced on the island but as it was placed on many of the coast islands by the early whalers it is not unlikely that this pest held sway on Guadalupe a half century or more before the richness of the flora and fauna was made known to the world by Dr. Edward Palmer in 1875. It is directly due to the despised Billy-goat that many interesting species of plants formerly abundant are now extinct, and also that one or more of the birds peculiar to the island has disappeared, and others are rapidly following.

When the island was first visited Dr. Palmer took two specimens of the Guadalupe Wren, *Thryothorus brevicaudus*. These were probably taken near the center of the island and it is not unreasonable to suppose that before the undergrowth was killed by the goats, the wrens were distributed over the top of the island in all suitable cover.

Ten years later Mr. W. E. Bryant made an exhaustive survey of the island and found the wrens rare, the few that remained being confined to the northeast end of the island, where a growth of pines straggling along the sharp ridge of North Head afforded a habitat "of 60x300 ft." In this restricted area Mr. Bryant took seven specimens. Fearing the extermination of the species the balance of the colony was unmolested, but as the sheltering undergrowth was more and more constricted by the goats the birds were either blown from the island by violent gales that frequently sweep over it, or killed by cats which infest the entire island since their introduction at about the time of Dr. Palmer's visit in 1875. The last week in May, 1892, Mr. Clark P. Streator, and myself paid a visit of one day to the North Head.

Near the beach and directly below the pines Mr. Streator took a pair of wrens which are now in the collection of the Biological Survey. On the ridge near the spot where Bryant found them, I discovered a bird which was secured, and saw what may have been a second but was of doubtful identity. Since that date I have made several calls at Guadalupe, and though the entire top of the island was carefully searched by myself and several assistants for days at a time we never found any signs of the species which must now be classed among those that were.

The constant destruction of all low-growing vegetation by the goats still continues, not only consuming the nesting sites and shelters of Junco, Pipilo and all ground-nesting species but giving to the ever-watchful cat more favorable opportunities for destroying the few birds that are left. *Pipilo consobrinus* is now nearly or quite extinct and the juncos are surely but steadily becoming scarce. Since the goats kill all of the young trees as soon as they appear above ground, and the larger trees are dying, the outlook for the future flora and fauna is not bright.

Portland, Oregon A. W. ANTHONY.

Descriptions of Two New Species and Three New Subspecies of Birds From the Eastern Pacific, Collected by the Hopkins-Stanford Expedition to the Galapagos Islands.

BY EDMUND HELLER AND ROBERT E. SNODGRASS.

I. Nesomimus melanotis dierythrus, new subspecies.

Nesomimus melanotis (in part), Gould, Voy. *Beagle*, III, Birds, p. 62, 1841, (Chatham and James Islands, Galapagos); Ridgway, Proc. U. S. Nat. Mus. ,XIX, 1896, p. 489.

Nesomimus melanolis melanolis (in part), Rothschild and Hartert, Novitates Zoologicae, VI, 1899, p. 145.

Type.—adult male, No. 4565, Leland Stanford Junior University Museum; North Seymour Island (near Indefatigable Island) Galapagos Archipelago, April 27, 1899.

Range.—Indefatigable and Seymour Islands, Galapagos Archipelago.

Subspecific characters—Nearest to *Nesomimus melanotis* (Gould) of James Island, but somewhat smaller in size; the bill smaller, the length of culmen averaging 22.6 mm., and measuring 23.7 mm. in the specimen with the largest bill, while in *N. m. melanotis* the average length of the culmen is 24.6 mm and our specimen with the longest bill has a culmen of 26 mm; color very similar to that of *N. m. melanolis*, but distinctly paler and of a more reddish-brown hue above, approaching in this respect the color of the Chatham Island form, *N. adamsi*.

Description of the Type—Upper parts rather light, somewhat reddish-brown, paler and more decidedly reddish on rump. Feathers of fore half of head with less distinct pale edges. Feathers of back dark brown centrally, with light reddish-brown edgings. Hind neck with a mesially interrupted collar of the pale color of the sides. Wings dark brown, the feathers all edged and tipped with buffy-whitish, giving a very pale tone to the under surface of the wing. Upper surface of tail dark brown, lower surface paler brown; feathers with large quadrate whitish terminal spots on the inner webs, those of the outer pair largest—25 mm in length, on the other feathers gradually decreasing in size and distinctness to the middle pair on which they are entirely lacking. Lower parts dull, dirty whitish. Sides suffused with buff. A number of distinct elongate brown spots on sides and flanks. Feathers of leg barred crosswise with brown. Lores, subocular region and auriculars blackish. A white supraocular line reaching from back of the nostril to the supra-auricular region where it is considerably widened. Lower eyelid edged with white. Bill and feet, black. Length 204 mm., wing 109 mm., tail 106 mm., culmen 23.5 mm., tarsus 17 mm.

Sixteen specimens from the Seymour Islands and the neighboring part of Indefatigable Island, Galapagos Archipelago. Collected in April and May.

MEASUREMENTS OF ADULT SPECIMENS OF *Nesomimus melanolis dierythrus*.

L. S. J. Univ. Mus. No.	Sex	Length	Wing	Tail	Culmen	Maxilla from Nostril	Tarsus	Locality
4680	♂	241	103	101	23.5	16.	35.	Indefatigable Island
4694	♂	250	108	103	23 7		35.5	"
4664	♀	238	95	93	23.	15.	34.	"
4693	♀	243	103	103	22.	15.5	34.	"
4659			97	90	23.	16.	34.	"
4587	♂	238	110	106	22.7	16.	36.5	North Seymour Island
4565	♂	240	109	106	23.5	17.	35.5	"
4568	♂	242	113	108	23.	16.	34.7	"
4566	♀	229	102	107	22.	16.	34.	"
4563			110	113	23.5	15.5	36.	"
4620	♂	244	109	103	23.5	17.	36.	South Seymour Island
4621	♂	246	107	102	22.5	16.5	36.	"
4635	♂	228	104	95	22.5	15.5	35.5	"
4612	♀	238	104	96	21.5	15.	34.	"
4629	♀	232	103	94	22.	15.	34.	"
4646	♀	240	103	95	23.	15.5	35.	"
Averages		259	105	94	22.6	16.	35.	

2. **Geospiza scandens rothschildi**, new subspecies.

Cactornis assimilis, Scl. and Sal., Proc. Zool. Soc., 1870, p. 323; Sal., Trans. Zool. Soc., IX 1876, p. 486; Sharpe, Cat. Bird Brit. Mus., XII, 1888, p. 18.

Geospiza assimilis, Ridg. Proc. U. S. Nat. Mus., XIX, 1896, p. 537.

Geospiza scandens, Roth. and Hart. Novit. Zool., VI, 1899, p. 165 (part).

Type.—Immature female, No. 5122, Leland Stanford Junior University Museum; Bindloe Island, Galapagos Archipelago, June 21, 1899.

Range.—Bindloe Island, Galapagos Archipelago.

Subspecific characters.—Much like *G. abingdoni* but the bill considerably thicker, the basal depth equal to or greater than length of gonys.

Only immature specimens are in the collection but these differ so much from specimens of *G. abingdoni* of the same age that it is very probable that adults will be found to differ correspondingly. Some of the thickest billed specimens are nearly indistinguishable from small billed specimens of *G. conirostris propinqua* of Tower Island. Some are close to *G. brevirostris.*

MEASUREMENTS OF *Geospiza scandens rothschildi.*

L. S. J. U. Mus. No.	Locality	Sex	Length	Wing	Tail	Culmen	Gonys	Basal Width of Bill	Basal Depth of Bill	Maxilla from Nostril	Tarsus
5146	Bindloe Id.	im ♂	148	72.	44.5	21.5	12.	9.5	12.	15.	20.
5237	"	" ♂	141	70.5	41.	20.	11.5	8.5	11.5	14.	20.
5145	"	" ♂	147	69.	42.5	21.5	12.	9.	11.5	15.5	23.
5722	"	" ♀	152	70.5	44.	19.5	11.	9.	11.5	14.	21.7
5173	"	" ♀	140	66.5	43.	20.5	10.5	8.5	11.	14.5	21.5
5175	"	" ♀	145	71.	40.	20.	11.	8.	11.5	14.	22.
5163	"	" ♀	144	65.	38.	20.	11.	8.	10.5	14.	20.5

3. **Geospiza fortis platyrhyncha**, new subspecies.

Type.—Adult male, No. 5150 Leland Stanford Junior University Museum; Iguana Cove, Albemarle Island, Galapagos Archipelago, June 7, 1899.

Range—Iguana Cove, Albemarle Island, Galapagos Archipelago.

Subspecific characters—Similar in size and proportions to *G. fortis dubia* but mandible considerably wider at the base, 12 mm. or greater.

The three adult black males in the collection differ from adults of *G. fortis dubia* in their wider mandibles but are otherwise indistinguishable.

MEASUREMENTS OF *Geospiza fortis platyrhyncha.*

L. S. J. U. Mus. No.	Locality	Sex	Length	Wing	Tail	Culmen	Gonys	Basal Width of Bill	Basal Depth of Bill	Maxilla from Nostril	Tarsus
5150	Iguana Cove, Alb. Id.	ad ♂	147	75.	46.	18.5	9.	12.	16	13	22.
4355	" " " "	" ♂	151	77.5	44.	18.	9.5	12.5	15	13	23.
4351	" " " "	" ♂	148	76.	46.	18.5	9.	12.	16	13	22.
	" " " "	" ♀	142	74.5	43.5	18.5	9.7	12.	16	13	22.
	" " " "	" ♀		71.	45.	18.	9.7	12.	15	13	21.5

4. **Sula nesiotes**, new species.

Sula brewsteri, Roth. and Hart. Novit. Zool., VI, 1899, p. 179. (11°, 20′, N; 110°, W.)

Type,—Adult male, No. 4271, Leland Stanford Junior University Museum; Clipperton Island, Nov. 23, 1898.

Range.—Clipperton Island and adjacent waters.

Specific characters.—Similar to *S. brewsteri* but brownish of head and upper parts considerably paler; bill and feet greenish; proportions averaging somewhat greater.

Description of the Type.—Adult male, Upper parts, excepting head and neck, light sooty-brown, deepening on the primaries into purplish-brown; sides of chest and under wing coverts, excepting an oblique white bar across the middle, brown like the dorsum; head above and on sides white, with a yellowish tinge, becoming ashy or light drab-gray below and posteriorly, gradually shading into smoky-drab on the chest and hind neck; the color of the chest ending abruptly against the white of the belly. The under parts posterior to fore-breast and axillaries and an oblique bar across middle of under wing coverts white. Coloration of naked parts in life: bill yellowish-green, becoming more greenish basally; gular sac dark pea-green; bare skin before eye purplish-violet; feet pea-green. Length 720 mm., wing 384 mm., tail 200 mm., culmen 94 mm., depth of bill 32 mm., tarsus 46., middle toe 80 mm.

Adult female like the male in coloration, excepting the head and neck which are uniform with the back in color, the feathers bordering the naked parts of the head slightly grayer. Size somewhat larger than in the male.

Compared with specimens of *S. brewsteri* from Cocos Island, the Clipperton specimens are conspicuously lighter with green bills and with feet greenish rather than yellowish. This is a common bird on Clipperton Island where it breeds in company with *S. cyanops* on the flat expanse of the coral beach bordering the lagoon.

MEASUREMENTS OF *Sula nesiotes*.

L. S. J. U. Mus. No.	Locality	Sex	Length	Wing	Tail	Tarsus	Culmen	Basal Depth of Bill.	Middle Toe
4271	Clipperton Id.	ad ♂	720	384	200	46	94	34	80
4279	"	" ♀	800	416	220	48	98	33	86
4275	"	" ♀	840	404	190	49	102	37	89
4272	"	" ♀	800	405	220	45	101	35	86

5. **Micranous diamesus**, new species.

Type—Adult male; No. 5079 Leland Stanford Junior University Museum; Cocos Island, July 1, 1899.

Range—Cocos and Clipperton Islands, tropical eastern Pacific.

Specific characters.—Near *Micranous hawaiiensis* Rothschild of the Hawaiian Islands, but differs from this species in being darker on the shoulders, on the lower part and sides of the neck and on the sides of the head, and in having a more slender and shorter bill and shorter tarsus.

Description of the Type—Forehead and top of head almost pure white, back part of head and nape with a plumbeous tinge. Back of neck plumbeous, darkening into dark plumbeous on shoulders and then into brown on the mantle. Rest of upper parts, except upper tail-coverts and tail, dark dusky brown; outer webs of outer primaries sooty-brown, almost black. Upper tail-coverts and tail, dark plumbeous-gray. Under parts dark dusky-brown, darkest on lower breast and on belly. Lower tail-coverts somewhat lighter plumbeous-brown. Tail below same color as above. Lores and line extending from lores over eye to middle of posterior side of eye, black, a small white spot in this line above posterior part of eye. Lower two-thirds of lower eyelid white. Cheeks deep dark plumbeous, pale color of back of head and neck scarcely extending upon lateral parts. Length 388 mm., wing 224 mm., tail 130 mm., culmen 45.3 mm. tarsus 21.5 mm.

Immature male.—Top of head pure white, with a few brown feathers posteriorly. Outer webs of outer primaries blackish-brown, that of the first almost black. Lores, supraocular line and cheeks, dusky brown. All other parts pure dark brown, but with no dusky tinge except on the lower part of the throat.

Adult female.—Does not differ from the adult male.

In *Micranous hawaiiensis* the pale slaty plumbeous color of the back of the head and neck reaches so far ventrally on the sides of the head, neck and even on the upper part of the breast, that there is distinctly marked off on the chin and throat a median longitudinal area of dark plumbeous-brown well defined on each side against the paler lateral parts.

Micranous diamesus is intermediate between *M. leucocapillus* Gould of the Caribbean Sea, Atlantic and Indian Oceans and the western Pacific, and *M. hawaiiensis* Rothschild of the Hawaiian Islands in both color of the plumage and the size of bill.

One adult male, four adult females and two immature females from Cocos Island in July, and one immature male and two immature females from Clipperton Island in November.

We are indebted te Mr. R. C. McGregor for the loan of an immature male of *Micranous hawaiiensis*, and to Mr. Wm. Alauson Bryan for an adult male of the same species from the Bernice Pauahi Bishop Museum of Honolulu.

MEASUREMENTS OF *Micranous diamesus.*

L. S. J. U. Mus. No.	Sex	Length	Wing	Tail	Culmen	Depth of Bill at Base	Mrxilla from Nostril	Gonys	Tarsus	Middle Toe	Locality
5079	ad ♂	388	224	130	45.3	8.7	33	30	21.5	28.3	Cocos Island
5015	" ♀	360	241	131	43.	8.3	32	28	21.	26.5	"
5205	" ♀	372	233	130	43.5	9.	31	28	20.	26.7	"
5111	" ♀	356	223	121	43.	8.7	31.5	29	21.	25.7	"
5026	" ♀	370	231	129	43.5	8.	32.	30	21.	26.5	"
Averages		369	230	128	43.6	8.4	32.	29	21.	26.9	"
5249	im ♀		233	123	43.5	9.	31.	28	21.	27.	"
5036	" ♀		230	120	45.5	8.3	31.5	30	21.	29.5	"
3825	" ♀	360	223	121	44.	8.7	31.5	28	20.5	27.	Clipperton Id
3819	" ♀	368	225	121	43.5	8.5	32.	30	21.	27.	"

MEASUREMENTS OF *Micranous hawaiiensis.*

L. S. J. U. Mus. No.	Sex	Length	Wing	Tail	Culmen	Depth of Bill at Base	Mrxilla from Nostril	Gonys	Tarsus	Middle Toe	Locality
	ad ♂	382	225	125	38.5	8.	28.	28	21.5	24.	Hawaiian Ids
	im ♂		210	118	38.	7.5	25.	25	20.	24.	"

* * * * *

Two Years With Mexican Birds. II. In the Haunts of the Trogon.

By E. H. Skinner.

EARLY one morning I took a heavy machete and a revolver, the machete to cut my way through the heavy underbrush and tangled hanging vines, and the revolver because a gun is carried with difficulty in the woods where one has to do as much crawling as walking. Collecting in the tropics is not exactly easy, taking mosquitos, temperature and a few other pleasant things into consideration.

Well, I started out; the morning was lovely, a trifle warm to be sure for there was not a cloud in sight and not a breath of air stirring. The way to the woods lay through the cafetal where Gray's Robin (*Merula grayi*), the most beautiful of Mexican songsters, was everywhere present, filling the air with its merry song, and Giraud's Flycatcher (*Myiozetetes texensis*) were squabbling in different parts of the plantation.

We are soon in the woods, however, where the birds are more sedate. Toucans, motmots and trogons are the interesting birds, on account of their plumage I suppose, for they do little but sit in the shade and meditate. The trogon family, including several species, are the lovliest birds to be found in Central America. They are graceful in form, retiring in habits, and for diversity and brightness of plumage are not equalled by any other birds of their range.

Trogons are found over all the country but more particularly in the highlands where their pleasant note can be heard at any time in the woods, and where they usually remain, rarely venturing into the open, because their slow flight would make them an easy prey to the raptores. *Trogon caligatus*, the commonest variety in the vicinity of the plantation, is a model representative of his genus, with his bright changeable colors. The remarkable point about him is the smallness and weakness of his tarsi and toes, which would scarcely answer for a sparrow.

I had not taken any eggs of this species up to the time of the present trip and knew practically nothing of their nesting habits, so I nearly wrecked my first set which I came upon by chance. We were walking along slowly and upon passing a decayed stump I struck idly at a rough opening in the side with my machete. It was a rude hole which looked as if it might have served a woodpecker sometime in the remote past, so my surprise may be imagined. The whole front of the excavation crumbled away under the blow revealing the two pearly white eggs on the verge of the nest.

The bird had not been seen to leave the nest, so I replaced the eggs carefully and fitted back the pieces which had been struck from the front of the nest, holding them in place by a piece of vine which I wrapped about the stump several times. A few days later by approaching the nest cautiously the bird flushed, proving to be *Trogon caligatus*. She had again settled down in her wrecked home as though nothing had happened. This was April 25, 1898; eggs fresh.

Another set of two eggs was found May 29, 1898 with embryos begun, near the edge of the woods in a decayed stump fifteen feet up. Another set of two eggs on May 12, 1899, incubation fresh; opening to nest, eight feet up. The nest is always a rough hollow in the most decayed or crumbling, punky stumps. The hollow is usually six or eight inches in diameter and is but a few inches lower than the opening, with no lining.

The Mexican name of the trogon is *Cabo*, which sounds a little like his call, consisting of two notes, the first a little higher than the second. It may be imitated by a low whistle, and sounds but little lower when one is 150 yards from the bird than when under the tree from which the sound proceeds.

When one is near to the bird, the sound seems to come first from one direction and then another, and the bird may readily be thought to be fifty feet away instead of at hand. The trogon's nest was the last find of the day, and at about 2 o'clock the inevitable thunderstorm came up, sending us back to the plantation, a water-soaked party of collectors.

* * *

Song of Zonotrichia coronata.

IN REPLY to Mr. Lyman Belding's query in The Condor (Vol. 3, No. 2.), I can state positively that the Golden-crowned Sparrow (*Zonotrichia coronata*) is not an altogether silent bird in this neighborhood during its winter residence. Its song, if it may be dignified by such a title, consists of three notes given in a descending scale with intervals of thirds, or to express it differently *sol, mi, do*. The sound is that of a very high whistle, in fact so high that in imitating the bird it is necessary for me to make it with the tongue against the roof of the mouth, the lips apart. The notes are given very softly and yet are penetrating.

I have been accustomed to hearing this song since my boyhood, and yet until quite recently ascribed it to Gambel's Sparrow (*Z. leucophrys gambeli.*). One evening at the California Academy of Sciences Mr. Chas. A. Keeler imitated this song and claimed that it was that of *Z. coronata*. A discussion on this point led me to observe these two species very closely during the past winter, and I now acknowledge that Mr. Keeler was right and I wrong.

The song is given when the bird is either on the top of a low bush or within the bush near the outside. As the two species invariably flock together during their residence in this neighborhood, and as it very difficult to distinguish the immature *gambeli* from *coronata* at any distance, when both kinds are banded together, especially when partially hidden by foliage, a great deal of watching was necessary to enable me to establish the identity of the songster. Many an attempt failed through my not being able even to discover which individual of the flock was singing; as any near approach would not only mean the cessation of the song, but the disappearance of the birds into the bushes.

At last, however, perseverance conquered, and on two or three occasions I managed, with the aid of good field glasses, to discover the individual and to identify it with absolute certainty. This song only seems to be given in certain states of the weather, notably before or after a rain, and is repeated again and again, often being taken up by other birds of the same species within call. People living in country towns often call this the rain-bird, and have asked me what bird it was that made these sounds. They were familiar with the song and associated it with rain, but had never discovered the author of it.

JOSEPH MAILLIARD.

San Geronimo, Marin Co., Cal.

In reply to Mr. Belding's query in the March CONDOR (p. 44) concerning the song of *Zonotrichia coronata* in California, I would state that the species sings regularly and frequently about Palo Alto. This spring I have noticed the song particularly, and on April 14 Mr. Barlow and myself heard the characteristic notes at Sargent, Santa Clara Co. Mr. Grinnell tells me the song is indistinguishable from that used during the breeding season in the Kowak Valley, Alaska. The bird says, it is suggested, "Oh dear—me!"

W. K. FISHER.

Stanford University, Cal.

* * *

The captive Californian Condor owned by Frank H. Holmes of Berryessa, Cal. and known familiarly as 'Ben Butler' died recently from some undetermined cause. This condor had been in captivity for several years, having been secured when a nestling, and many Coast ornithologists had journeyed to Mr. Holmes' aviary at various times to watch the great bird, which captivity had subdued into a confiding pet.

Summer School of Zoology at Pacific Grove.

The tenth session of the Hopkins Seaside Laboratory will begin Monday, June 10, at Pacific Grove, Cal, the course of instruction continuing six weeks and closing July 20. The following courses will be offered during the term: 1. A Course in General Zoology by Prof. Geo. C. Price of Stanford University; 2. An Elementary Course in Botany by Prof. Geo. J, Pierce; 3. An Advanced Course on the Structure and Physiology of the Algae by Prof, Pierce; 4. A Course in Embryology by Prof. Price; 5. A Course in Comparative Morphology and Histology of the Nervous System and Sense Organs by Prof. Frank M. McFarland; 6. An Advanced Course in Zoology by Prof. McFarland; 7. General Ornithology by Joseph Grinnell.

Ornithologist of the coast will be particularly interested in the last-named course, and the announcement that Mr. Grinnell will act as instructor carries with it the assurance that ornithology will be presented in its most interesting phases, together with a keen appreciation of its salient points, such as has always characterized Mr. Grinnell's work. Laboratory work will consist of practice in the identification of specimens and preparation of study-skins; study of plumage structures; and dissections to demonstrate the gross anatomy of a typical bird.

Field excursions will be undertaken to acquaint students with the notes and habits of the more common California species. Lectures will be given on distribution, migration, moult classification, and economic relations of birds. The endeavor will thus be to conduct a practical course of especial value to teachers in Nature Study. Pacific Grove is a seaside resort on the southern shore of Monterey Bay, two miles west of Monterey. It is reached by the Coast Division of the Southern Pacific Railway, and is about four hours distant from San Francisco. The coast line at this point offers every variety of rocky and sandy shores, and the variety and abundance of marine life is exceptionally great. The Laboratory is located on a low bluff immediately overlooking the beach. In its immediate vicinity are exceptionally fine collecting grounds.

We earnestly commend the course to Club members, as well as others interested in general zoology.

* * *

Wm. Steinbeck and A. W. Johnson on an outing into San Benito County during March, collected an interesting series of eggs of the Golden Eagle, their take consisting of ⅔ and 6-2.

AN INFORMATION COLUMN.

The editors take pleasure in presenting and endorsing the following excellent suggestions:—

San Francisco, April 10, 1901.

To Members of the Cooper Club:—

"In a recent number of The Condor (Vol. 3, No. 2) the editor's parenthetical remarks under Mr. Lyman Belding's inquiry as to the song powers of our Golden-crowned Sparrow, are most pertinent to our desire to see an 'Information Column' embodied in this publication.

"Only through some such medium can information necessary for even the partial completion of 'California Life Histories' be secured. We therefore hope this suggestion will receive the earnest consideration we now ask for it.

"The benefits to be derived by some such co-operation will become apparent when due thought is given to the enhanced value of notes taken at various points simultaneously as compared with those of some one individual taken sporadically in various localities, or in different years in the same locality. Under the former system the arrivals and departures, moults, nesting habits etc., would be observed under corresponding conditions instead of, as might be in the latter cases, under such varied conditions as could readily arise from climatic or food influences. Thus, May notes taken in, say, Los Angeles County during May of a dry year and those taken in Marin County during the corresponding month of a wet year would be valueless in their comparative deductions, as compared with such taken in those counties simultaneously.

"As many of us desire information with which to fill out gaps in our own observations, would it not be a good scheme to establish a column of information in The Condor, for the purpose of mutually supplying information in answer to each other's queries? If more than one answer be received to any one question this department could be edited and condensed by the editor of the magazine in such a way as to bring forth facts and authorities and yet not occupy much space.

"There are many questions to which we can find no answers in ornithological libraries to which we may have access. Many of these answers should be found among notes collected by different members of the Club. Other questions to which no notes will apply may prove a stimulus to further and more detailed observation on the part of those interested, and the results in either case would be of benefit to all.—J. & J. W. Mailliard."

Since the Information Column is obviously capable of bringing into publication much valuable data, it will become a permanent feature of this magazine providing Club members take an active interest as should be the case. Queries will be numbered consecutively and subsequent replies will bear the numbers of the queries to which they may refer.

Queries.

1. What is the California winter range of the Cedar Waxwing?

2. What is the California summer range of the Cedar Waxwing, with notes as to breeding records?

3. Time of post-juvenal moult in the House Finch?

4. Time of disappearance of similarity to adult males in plumage of Dryobates and Melanerpes?

5. Any peculiarities noted during the past winter in the range of Clarke's Nutcracker?—John W. Mailliard.

6. Does the Rufous Humingbird (*Selasphorus rufus*) breed in California? Hundreds of nests and eggs have been collected in this state and sent out to museums and collectors as of this species; and numerous articles have been written describing the nesting of the Rufous Hummingbird from different parts of the state, even south to San Diego. Nevertheless I feel almost confident that it is principally if not altogether the Allen Humingbird (*S. alleni*) to which these accounts refer. All the nests of which I have personally known have been of the latter species. The fact that the former species occurs in migration in the same localities and at the same seasons, should make the collector all the more careful in his identifications. Will someone present an *authentic* instance of the nesting of the Rufous Hummingbird in California?—Joseph Grinnell.

A Study of the Birds of Santiago Canyon.

MOLLIE BRYAN, ORANGE, CALIFORNIA.

IN A NOOK in Santiago Canyon, where foothills and mountains meet, nestling among the live oak trees is a little home, the ranch of Mr. J. E. Pleasants, where two bird lovers dwell, and where other bird lovers delight to come. Here may be found many of the birds of both mountain and plain.

In days past the Bald Eagle was a common visitant, and the California Condor was almost as plentiful as the Turkey Vulture is now. Many eagles have been killed by those who kept goats, but why the condor has departed, no one can tell. None have been seen here for twelve years or more.

It has never been my good fortune to see as many birds in one spot as can be found in this grove of trees, for here food and water are kept out for them, and protection afforded from all ordinary means of harm. In this 'bird's paradise' all life is spent beneath the trees. It is a luxury to lounge on couches or in hammocks and study the birds as they are enticed within the garden and grove. It is here that for more than two years the most of my study of the habits of birds has been made.

At this point we are over eleven hundred feet above the sea level, and in the shadow of Santiago Peak, the highest point of the Santa Ana range. After a night of refreshing sleep in the pure mountain air, we are awakened by a concert given by the residents of the the grove. The Arkansas Kingbird, lark, sparrows, linnets, orioles, and Plain Titmice and the metallic call-note of the California Towhee may be heard. The woodpecker and the bluejay join in. An obligato solo is rendered by the Black-headed Grosbeak from high in a sycamore tree, and the Pasadena Thrasher sends out his song from the top of the sumach bush. The mocking bird at a distance, adds his glorious song to this unrivaled chorus.

One morning there was great excitement under the arbor over the advent of a Violet-green Swallow, who alighted on the fence and remained so long all the household had ample opportunity to observe his beautiful colors and silky plumage. Later in the day, while lazily swinging in the hammock, glasses and note-book by my side, the domestic life of many of these birds has been studied. The linnet and California Towhee are on very intimate terms with my bird friends, and make their homes beneath the roof of the arbor, where our every movement may be seen.

The orioles festoon the vines of the porch with their dainty baskets of palm fiber. Anna's Hummingbird swings his dainty cradle beneath the arbor, the Black Phoebe plasters its mud nest to the frame of the arbor, darting above the table for a fly for his little ones. The California Thrasher, here familiarly called by its pretty Spanish name of "huita-coche" ventured, once only to build it loosely-woven home of coarse sticks within the limits of the grove. The Phainopelpa perches on a fence post and with airy crest outlined against the sky, sings its sweetest melody. But we already know that a nest is being built in a sycamore tree close by.

A daily visit to the nests about the place is made. The gentle dove, whose frail nest failed her, readily accepted a strawberry box, wired in place, as a substitute. The Kingbird, Phainopepla's Pewee's, and both the Arizona Hooded and Bullock's Orioles' nests were all objects of interest. As we wander farther away the brilliant colors of the Louisiana Tanager illumine the landscape, though it is only for a time, as he passes on to the higher mountains to nest. The Pasadena Thrasher sits on the top of a small live-oak tree, pouring forth a sweet song and looking so awkward with its long curved bill. He knows his nest is securely hidden from us. A Spurred Towhee sings his pretense of a song from a fence post, flitting from one perch to another, leading us on and on, till our feet turn naturally to the familiar path that leaps up the side canyon to the tank.

We follow a well-beaten trail through thick-growing bushes of sumach, Yerba Santa, mimulus and wild currant. The sages, as we brush by, fill the air with a delicious fragrance. We pass between beds of violets, nemophilas, purple night-shade and wild heliotrope. The bushes are festooned with the delicate trailing wild pea. Yuccas stand sentinel high on the mountain side. The fuschia-flavored gooseberry is alive with the fairy forms of Allen's and the Rufous Hummingbirds. These bits of irridiscent make you think the lovely scarlet flowers have taken to themselves wings. As the canyon narrows in, the rugged sides project with ledges of rock filled with fossils, only waiting the tap of geologist's hammer. If this narrow gorge is a spot to fill the heart of the botanist or geologist with delight, what must it be to the bird student?

The cry of the bluejay accompanies us as he laughs over our failure to find his nest. The "Jacob, Jacob, Jacob," of the woodpecker is dying away in the distance. The Turkey Vultures soar majestically above us, while a Blue-grey Gnatcatcher flits through the bush at our elbow. From away up the mountain side comes ringing the wild free song of the Wren-Tit, a song as exclusively Californian as is the odor of the sages. It is here, where the overhanging ledges almost meet and the path drops into the rocky bed of the creek, passing from one boulder to another, that I found our Canyon Wren. Its surprise was so great, when it hopped out from a cranny of the rock and saw me, that it paused and looked me full in the face apparently noticing my color markings, as I was studying its own. Then with a harsh "squeel" away up the rocky ledge it flitted, and was at once forgetful of the two pairs of glasses following its every movement. Its white throat gleamed in the sunlight as it darted from out a shady crevice and peered into every crack and seam, poking its curved bill among the mosses and lichens for the insects suited to its palate, but always careful to not betray its little home.

From here it was a quick, short climb up the slanting bed-rock of the stream, and we stood at the entrance of a basin, shaped like a great bowl with a triangular piece broken from one side. Between banks of ferns and yellow oxalis, through this crack in the bowl, we enter. The basin is perhaps seventy-five feet across and a tank, built to supply the ranch with water, stands in the center. The walls are of sedimentary rock with alternate layers of sand-stone and pebbles, in tilted strata. They are fringed above with overhanging cotyledons.

The retort-shaped nests of the Cliff Swallow fill the water-worn cavities near the top of the cliff. These were occupied, the chattering birds sailing above, and swooping down to express their disapproval of intruders. The constant supply of water here afforded brings all the birds known in this section. From a natural seat, high above the tank, and partially concealed by the overhanging wall, one may sit for hours and never a moment but rich entertainment is afforded.

The Flicker sounds a loud alarm as his wife comes dancing and bowing down the pipe that leads from the spring above, to take a drink. Although we became statues she heeds her lord's command, and does not venture. Valley Quail peer cautiously over the cliff and seeing us, slip noiselessly down to a pool below for their drink. Linnets, Wren-Tits, Bush-Tits, vireos and numberless others come and go, keeping our eyes and ears on the alert.

(*to be continued*).

COMMUNICATIONS.

THE BIRDS OF CALIFORNIA.

To Cooper Club Members:

It has seemed to me that California is rather backward in ornithological work of a general nature. We have many local lists and a great quantity of biographical literature, but this is scattered about so widely, that it is difficult for a person to find out just what has already been done in any line. Colorado has inaugurated a system of compiling and indexing its bird literature in a State List, which seems to me comprehensive and useful. The original publication compiled by W.W.Cooke has been followed at intervals by supplements, and through these one is enabled to keep up with the progress of ornithology in Colorado. I believe that a similar system is greatly needed in California.

A STATE LIST.

I have therefore undertaken the compilation of a State List, including an index to all the available literature pertaining strictly to California Birds. This I realize is assuming a very difficult and tedious task, for California is ornithologically, without any doubt, the biggest state in the Union. But even if I cannot bring such a thing to publication myself, I shall keep the bibliography and citations systematically arranged, so that anyone else can take up the work where I leave off.

A good scheme presents itself for the determination of the known breeding ranges of the various species of birds in California. To this end, the Cooper Club has recently had printed a map of the State, drawn to show the streams, lakes, valleys and principal mountain ranges.

DISTRIBUTION MAPS.

These maps are 12x15 inches, and printed on paper that will take a light water-color wash. It is our idea that each active member should procure a quantity of these blank maps, and, devoting one map to each species, indicate all points where he knows that species to breed, *from personal experience*. I think the more active collectors would find this very interesting and instructive; and moreover, after a time the maps could be turned in to myself, or whoever had charge of the State List work, and from them could be compiled a set of maps to show our entire knowledge of the distribution of each species in summer within the State. I would suggest that at least 50 of these maps would be necessary, so as to include the usual breeding species of a section. One map might be used for several species, by choosing a different color for each. In order to meet the expense of the plate and paper for these maps which do not properly come under the head of Club publications, it will be necessary to charge extra for them. They can be obtained at 2½ cents each ($2.50 per 100) from the Club Business Manager, C. Barlow, Santa Clara.

In spite of the amount of field work already accomplished in California, there are many sections, which have been scarcely touched. The California side of the lower Colorado River offers a most inviting field for a season's collecting, for it has never been carefully worked.

INVITING FIELD-WORK.

Heermann has made almost the only records from there. I will venture to say that a single season's energetic collecting in the vicinity of old Fort Yuma, would add at least twenty species to the list of California birds. Other little known portions of the State, are the Pitt River region of north-eastern California; the Humboldt Bay region, and the Santa Lucia mountain region of southern Monterey and San Luis Obispo counties.

Our hypothetical list as constituted up to date numbers nearly a third as many species as the main list. Numerous birds have been accredited to California without sufficient evidence. As an example, we have two records of the Eskimo Curlew (*Numenius borealis*,) but each has been challenged, as probably being misidentified *Numenius hudsonicus*.

INFORMATION WANTED.

Our water birds are least known. Mr. Loomis of the California Academy of Sciences has done almost the only thorough work with them, but his base of observatons has been chiefly at Monterey. We need information from numerous points along the Coast. Every Cooper Club member should go over his collection of water birds, and compile from it the dates and detailed accounts of the rarer captures. Be absolutely certain of your identifications, paying particular attention in this respect to the gulls, terns and waders. Send doubtful ones to some authority so as to *be sure*. Finally send these notes to Barlow for publication in THE CONDOR, so we can all have the benefit of your knowledge.

Respectfully,
JOSEPH GRINNELL.

Palo Alto, California, April 12, 1901.

BITING BIRD-LICE (MALLOPHAGA) OF PACIFIC COAST BIRDS.

To the Editor:—

In handling dead (and live) birds collectors will often notice small, flattened wingless, swift-running insects among the feathers, especially on those of the loral regions of the head. These insects are biting bird-lice (Mallophaga) and this reference to them is made in the hope that bird collectors of this Coast will aid me in my studies of these parasites by collecting specimens of them. In the last few years I have been able to determine about 250 species of Mallophaga from North American birds, of which number I have described about 150 as new. The other 100 are assigned to species previously described from European birds. Most of the American birds from which these Mallophaga were taken were collected by Mr. Loomis of the California Academy of Sciences by zoological students of Stanford, or by myself, and have been chiefly Pacific Coast birds (from Alaska to Panama). A really good start has thus been made toward a knowledge of the Mallophaga of western birds. But more specimens are necessary, and I must trust to bird collectors for help in getting this material. One can hardly bring oneself to shoot birds for the sake of collecting Mallophaga, but birds taken for skins can be made to render a double offering to biological science in their death if the ornithologist will take the little trouble necessary to collect their insect parasites.

All the Mallophaga from a single bird specimen should dropped into a vial of 85% alcohol, with a label bearing the name of bird, date and locality of capture, the name of collector. *Use a separate vial for each bird individual.* One dram vials are the best, because smallest and cheapest. The vials should be well packed in cotton in firm wooden or tin boxes, and may be sent *free* by Well's Fargo Express, addressed to Entomological Museum, Stanford, California. Mark also, "Specimens, Donations" on the outside of the package.

I make this request now hoping that CONDOR readers may have it in mind this summer. As I shall be away from Stanford all summer, sending of specimens should be postponed until after September.

Sincerely yours,
V. L. KELLOGG.

* * *

PUBLICATIONS REVIEWED.

A NEW RACE OF THE GREAT BLUE HERON, WITH REMARKS ON THE STATUS AND RANGE OF *Ardea wardi*. By Frank M. Chapman. (Author's edition. Bulletion of the Am. Mus. of Nat. History, Vol. XIV, Article VIII pp. 87–90. Apl. 18, 1901.)

In the present paper Mr. Chapman separates the Great Blue Heron of the northwest coast region under the subspecific name of *Ardea herodias fannini*, the type coming from Queen Charlotte Island. The proposed subspecies differs from *Ardea herodias* in having "a shorter tarsus and with plumage throughout much darker, the upper parts being bluish slate-black instead of bluish gray; tibiae more feathered." It is suggested that this form intergrades with true *herodias* further south.

The author mentions that in the examination of material incident to the description of *A. h. fannini*, the Florida heron, (*Ardea wardi*) has not been found to possess characters entitling it to specific rank, that there is nothing to indicate that the bird is other than a southern form of *Ardea herodias* and it is therefore suggested that it become *Ardea herodias wardi*. It is also proposed to extend the range of this southern form to the coast of Texas, whence specimens quite identical with the Florida birds have been taken.—C. B.

THOSE of an analytical turn of mind should 'rest' in the April *Auk*. There are subspecies to fit all tastes. Some them an Audubonian will accept, while others need a severely subjective state and a north light. It is worth remarking that the subjective enters into every science which has reached an advanced stage and it seems to have been used occasionally by enthusiasts in discriminating too closely related races. But this does not necessarily militate against subspecies properly used.

We cannot touch upon the articles of a general nature, but note the new races which are of interest to western ornithologists. Joseph Grinnell describes the varied thrush of the interior of Northern Alaska as *Hesperocichla nævia meruloides*, reviving a name given by Swainson very probably to this form. He also separates the Aphelocoma of the Willamette Valley under the name *Aphelocoma californica immanis*. Francis J. Birtwell describes *Parus gambeli thayeri* from Albuquerque, N. M. Wilfred H. Osgood separates the white-tailed ptarmigan of Colorado from the northern form under the name *Lagopus leucurus altipetens*. He also describes *Anorthura hiemalis helleri* from Kadiak, *Certhia familiaris zelotes* from the southern Cascade Mts. of Oregon and Sierra Nevada of California, and *Hylocichla aonalaschkæ verecunda* which is distributed on the islands and coast of British Columbia and Southern Alaska. Descriptions of fifteen subspecies are reprinted from other sources. Those which have not appeared in THE CONDOR are: *Colymbus dominicus brachypterus* Chapman, Lower Rio Grande, Texas; *Arenaria morinella* (Linn) from Hudson Bay region and Northeast; *Asio accipitrinus mcilhennyi* Stone, Arctic barren grounds; *Sturnella magna argutula* Bangs, Florida; *Hirundo erythrogastra unalaschkensis* (Gmelin) Unalaska; *Merula migratoria achrustera* Batchelder, lowlands of Georgia and Carolina.

Personally we miss the colored plates which *The Auk* seems to have discontinued—and, we believe, to the detriment of the magazine.

W. K. F.

PACIFIC COAST AVIFAUNA NO II is a neatly composed "List of the Land Birds of Santa Cruz County, California." The author, R. C. McGregor, has not only drawn from his own field observations, but has also incorporated the notes of several others who have collected in the county. All available published accounts are made use of, as well; so that we may consider this list to enumerate all the species ever found within the county. The authorities quoted are always carefully cited in foot-notes, while pleasing conservatism is shown in the treatment of doubtful records. The annotations are mostly brief, consisting of nesting and migration dates, comparative abundance, distribution, etc.

The nomenclature presented in this paper strikes one as too much of an improvement on the A. O. U. Checklist. Nearly every lately proposed change is adopted without question. The discrimination by name of such closely allied "genera" as *Nuttallornis* and *Horizopus* seems to us rather more of a burden than convenience. We also note that there is a confusing instability in the use of vernacular names. The millenium of permanency in nomenclature seems further off than ever!

The "Introduction" includes a brief but valuable account of the "Faunal Position of Santa Cruz Cruz County," by W. K. Fisher. *Avifauna No. II* is certainly an important addition to the ornithological literature of the State.—J. G.

* * *

So staid an ornithologist as Richard C. McGregor has, for a time, forsaken his trays of bird skins, the scalpel and the rule to pay tribute to Cupid. On Wednesday, April 10, Mr. McGregor was united in marriage to Mrs. Edith M. French of Palo Alto, the ceremony being performed in the presence of a few intimate friends in San Francisco. Miss Josie Hart attended the bride, while Chas. M. Mannon acted as groomsman. Mr. McGregor's ornithological *cônfreres* extend to him and his bride a goodly measure of well wishes, and trust that his already active work in ornithology will be augmented by this acquisition of a helpmeet.

That the zealous ornithologist is sometimes misjudged by an unsympathetic public, Donald A. Cohen, the well-known Alameda ornithologist can testify. Toward the latter part of March, in company with a fish-basket of generous dimensions, Mr. Cohen and his brother, a camera artist, wheeled through the town of Haywards, *en route* to the aërie of a Prairie Falcon in the near-by hills. It so happens that the trout season in California opens on April 1, and a watchful peace officer, concluding that a fish-basket thus early in the season augured evil, followed the naturalists a warm, lengthy and interesting chase, only to have the utility of the fish-basket to the oologist explained to him most courteously at the end of the chase!

Ornithologists will hail with satisfaction the announcement that the Smithsonian Institution will complete the Life Histories of North American Birds, begun by the late Major Chas. E. Bendire who completed two volumes before his death. Dr. W. L. Ralph, Honorary Curator of the Department of Oology and a close personal friend of Major Bendire, will have charge of the work and has issued requests for notes on the life history and nesting habits of A. O. U. species and subspecies No. 514 to 635 inclusive, which will embrace the third volume of this superb work. Dr. Ralph's field experience doubtless renders him the most available person to take up the uncompleted work of Major Bendire, and he should be accorded every assistance by field workers in the West who possess, in some cases, almost exclusive notes concerning many little-known species.

* * *

THE PROPER NAME FOR THE KADIAK SAVANNA SPARROW.

Bonaparte's *Passerculus anthinus* is from "Kadiak, Russian America:" Compte Rendu, Dec. 1853, p. 920. It is compared with *Passerculus alaudinus*, described on p. 918 from "California," as being very similar but with more slender beak, head suffused with yellow, and beneath pale rufescent, more spotted. It has been suggested that the localities of *anthinus* and *alaudinus* might have been transposed (Baird, Brewer and Ridgway, Hist. N. Am. Bds. I, 1874, p. 539, foot-note.); but this idea is refuted by Ridgway (Proc. U. S. N. M. VII, 1884, p. 517, foot-note).

However inapplicable Bonaparte's description may be to the race breeding on Kadiak Island, the fact that the type ostensibly came from there seems to make it desirable to use Bonaparte's name instead of *xanthophrys* proposed by me in the CONDOR (III, Jan. 1901, p. 21). The Kadiak Savanna Sparrow therefore becomes *Ammodramus sandwichensis anthinus* (Bonaparte).

JOSEPH GRINNELL.

THE CONDOR.

Bulletin of the

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OF CALIFORNIA.

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This issue of The Condor was mailed May, 15.

EDITORIAL NOTES.

Bird Protection Bill Defeated The sweeping Bird Protection Bill projected in the recent California legislature by the Cooper Ornithological Club, and known as Senate Bill 114, has failed to become a law. It was reasonably expected that a bill of this nature, having successfully buffeted the adversities of both houses of the legislature, would receive the governor's sanction and consequently become a law, but in this instance bird protectionists were doomed to disappointment and upon Governor Gage alone rests the odium of relegating California to its former position of a non-protective bird state.

This was the first concerted effort to place California on a bird protection plane, and that all concerned with the bill labored faithfully and well is a matter of general knowledge. The bill, with but little substitution, passed both houses of the legislature and few doubted that the governor would add his signature and approval to the proposed statute, the sole possible effect of which would have been for public good. However, for some inscrutable reason, the bill was permitted to suffer the "pocket veto." Thus it becomes apparent that California's governor has no appreciation of measures which savor of the æsthetic. He has evidently not kept apace with the work of bird protectionists in the United States, and considers such movements but lightly if at all.

To bewail the short-sightedness of the governor at this juncture is a waste of both words and energy. The fact remains, that the Cooper Club through its able member, Senator E. K. Taylor, prepared and carried to successful completion the only thorough bird protection bill which has yet been considered by the California legislature. Practically the *entire* credit for the successful handling of the bill rests with Senator Taylor, whose legislative work was marked throughout by a combination of brilliancy, energy and conscientiousness. His effective efforts not only carried the bill through the Senate but practically through the Assembly as well, and to him the bird protection forces of California may well look for a legislative leader.

The failure of the bill may be attributed to a variety of sources, the true one being best explained by the governor providing he could be persuaded to become communicative. The most plausible inference is that the governor feared to act in the face of the considerable opposition developed by the bill in the legislature. This opposition, it should be understood, was but the natural outcome of placing such a sweeping bill before a legislative body, many members of which had little or no idea of the scope of the proposed measure, if indeed they could give a comprehensive definition of bird protection. In the face of such conditions Senator Taylor's work is the more remarkable.

The killing of this measure permits vandals to slaughter songsters and non-game birds as before, and the hordes of ignorant foreigners may continue to snare all manner of wild birds, which vicious and destructive practice has already been pointed out in the columns of this journal. It is indeed lamentable that the chief executive of a state, rich in its bird life as is California, should disregard a plea backed by scientists, fruit-growers and the public alike. The result is disappointing, but bird-protectionists may still accomplish much valuable local work, and recruit their forces for another effort two years hence.

Several months having elapsed since the initial numbers of at least two bird magazines were given the public, with no subsequent issues to bridge the gap, we may naturally infer that January has proven an unpropitious month in which to launch such publications, or at least this assumption seems applicable to the two journals in question. Such occurrences—all too frequent of late years—tend to shake public confidence in the stability of new magazines, while publishers may justly reserve the "glad hand" until they know whether their "congratulations" are to concern one lonely number,—or more.

It is true that every magazine must have its beginning, and all publishing efforts, if they be characterized by regularity of issue, become entitled to the confidence and patronage of the ornithological fraternity. Numerous magazines are unpretentiously piling up volumes to their credit, and we may cite the *Wilson Bulletin*, *The Journal of The Maine Ornithological Society* and *Notes on Rhode Island Ornithology* as examples of publications which are accomplishing praiseworthy work in their given fields. Ornithologists, and even the much-abused bibliographer, are ready to concede the right of existence to any periodical which will appear with reasonable regularity and promptness, but both patronage and sympathy are largely lacking for the "slow," magazine, while the tendency is unmistakable that it should be entirely withheld from the "one-number" class of bird journals.

* * *

Official Minutes of Northern Division.

ANNUAL MEETING, JANUARY.

The Division met at the residence of E. H. Skinner, San Jose, Cal. Jan. 12, with thirteen members present and M. P. Anderson as a visitor. The program of the evening was first given as follows:—Talk, "The Distribution of Certain Bird Races in California" by Joseph Grinnell, illustrated by drawings; Talk, "Introduced Birds in the Hawaiian Islands," R. C. McGregor, exemplified by skins. Five previously proposed members were made active members, as follows:—F. H. Fowler, R. E. Snodgrass and J. F. Illingworth of Palo Alto; J. S. Burcham of Stanford University and M. P Anderson of Menlo Park. The annual election of officers resulted as follows:—President, Joseph Grinnell: Vice President, H. R. Taylor; Secretary, C. Barlow; Treasurer, D. A. Cohen.

At the juncture of Mr. Emerson's retiring from the chair Mr. H. R. Taylor arose and presented him with a testimonial from the Division for his noteworthy administration. The following names were proposed for active membership; Chas. M. Mannon and C. A. Love of San Francisco and A. C. Herre of Palo Alto. Mr. Emerson addressed the meeting urging the appointment of a Bird Protection Committee within the Club, suggesting fifteen members from each Division. The motion was passed and a complete list of committeemen will be found on another page.

Resolutions were passed combining the office of business manager with that of the editor, who is empowered to collect and expend all Club funds. The meeting now adjourned to a banquet where addresses were delivered by ex-president Emerson on 'A Retrospect of 1900" and by President Grinnell on "The Outlook for 1901."

An adjourned meeting of the Club was held on the morning of Jan. 13 with nine members in attendance. A Program Committee was created, to consist of three members. On motion the acting president was constituted Executive Committee of the Club. A committee of three was appointed to draft a new constitution and by-laws, it being suggested that the annual dues be made $2, beginning with 1902. Other committees were retained. The president made the following announcements:—Committee on Constitution, R. C. McGregor (Chairman); E. H Skinner and T. J. Hoover. Program Committee, J. O. Snyder (Chairman), W. K. Fisher and F. H. Fowler; Editor and Business Manager, C. Barlow; Associate Editor, Walter K Fisher.

MARCH.

The bi-monthly meeting was held at the home of W. Otto Emerson at Haywards, March 2 with eighteen members present and Joseph Grinnell presiding. Under the election of active members the following were added to the roll: Chas. M. Mannon, San Francisco; C. A. Love,, San Francisco; A. C. Herre, Palo Alto; R. N. Diggles, Palo Alto; Prof. Vernon L. Kellogg, Stanford University; Geo. Coleman, Stanford; Leon Hottel, Napa; Verna Dresser, Pismo; Wm. N. Ingram, Pacific Grove: H. M. Holland, San Diego; Chase Littlejohn, Redwood City; H. R. Johnson, Palo Alto; Geo. H. Sharpe, Vacaville; M. French Gilman, Banning; W. F. Dean, Three Rivers; Prof. W. E. Ritter, Berkeley; Miss Ellen Mathews, Stanford; Miss Lillian M. Julien, Yreka; Miss Bertha L. Chapman, Oakland; Miss Bertha F. Herrick, Oakland and Miss Helen Swett, Alameda.

Chas. M. Mannon was invited to address the meeting on the proposition of the Club becoming incorporated. On motion a committee was ordered named by the president to draft suitable resolutions and to have matters in readiness to proceed with the work of incorporation at a special meeting to be called by the president. In anticipation of this action, the constitution committee was discharged. Mr. Mannon was extended a vote of thanks for his lucid presentation of the matter.

The program of the evening was taken up. A paper on "Two Years with Mexican Birds" by E. H. Skinner was read. Walter K. Fisher gave a talk on "Life Zones," and was followed with remarks by Walter E. Bryant. A paper entitled "Eggs from American Barn Owls in Captivity" was read by Donald A. Cohen. Mr. Grinnell read a paper entitled "Extracts from Publications Concerning Early Californian Ornithology." On motion the meeting adjourned, to meet next at Stanford University on May 4.

MAY.

An open meeting was held in the lecture-room at Stanford University May 4, with large attendance. Jno. O. Snyder delivered a brief talk styled "A Day With the Birds of Tampico, Mexico." Robert E. Snodgrass spoke at length on "The Galapagos Islands," dealing with their general features. Edmund Heller followed with a talk on "Galapagos Birds."

A committee was appointed to prepare a draft of new constitution to be presented at the next meeting. The names of Miss Ora Boring of Palo Alto, Willis H. Jackson of Pescadero, H. R. Noack of Berkeley, J. S. Appleton of Simi and P. C. Mitchell of Downey were proposed for active membership. A communication from Frank S. Daggett recommending the formation of chapters in the Club was read and favorably received. The July meeting will be held at Santa Clara.

C. BARLOW, Secretary.

* * *

Official Minutes of Southern Division.

FEBRUARY.

The regular monthly meeting was held Feb. 27 at the residence of Frank S. Daggett at Pasadena. Ten members were present, with Dr. F. Grinnell as a visitor. The president announced the following persons as members of the Bird Protection Committee from this Division: C. A. Moody, Dr. Garrett Newkirk, Roth Reynolds, Geo. S. Chambliss, Dr. G. V. Coffin, Miss Mollie Bryan, Mrs. J. E. Pleasants, Mrs. A. C. Wilson, Evan Davis, Edw. Simmons, J. Eugene Law, B. W. Hahn, H. J. Leland, Lee Chambers and A. M. Ingersoll.

The name of W. Scott Way of Cucamonga, Cal. was proposed for active membership. On motion the president was authorized to voice the sentiments of the meeting with respect to improving the present cover of THE CONDOR, and to communicate with the Northern Division in this regard A paper entitled "Two Amusing Incidents" was read by A. I. McCormick. After discussion the meeting adjourned.

MARCH.

The regular meeting was held March 30 at the residence of B. W. Hahn in Pasadena, President Daggett presiding and nine members present. Miss Moody was present as a visitor. W. Scott Way of Cucamonga was elected to active membership in the Club. The names of A. M. Jamison of Santa Monica and Dr. J H. McBride of Pasadena were proposed for membership. A communication from the Northern Division relative to contemplated incorporation of the Club was discussed and Messrs. Hahn, Moody, Conant, Daggett and McCormick were appointed a committee to represent the Southern Division.

Geo S. Chambliss of Altadena, through Mr. Daggett, tendered the Division the use of a number of valuable works on ornithology provided a proper custodian be appointed. Upon motion the offer was accepted and the thanks of the Division ordered extended Mr. Chambliss, together with the request that he select a permanent custodian to carry out his wishes. Mrs. C. A. Moody read a very interesting paper entitled 'Bird Notes', being observations of bird-life gleaned about her home in Los Angeles. Two papers from the Northern Division were read, and after a repast, the meeting adjourned.

A. I. MCCORMICK, Secretary pro tem.

APRIL.

The April meeting was held at the residence of F. S. Daggett, Pasadena. President Daggett called the meeting to order with seven members present. Mr. J. E. Pleasants and Fordyce Grinnell were present as guests.

In absence of the Secretary, H. S. Swarth acted as Secretary pro tem. A. M. Jamison of Santa Monica and Dr. J. H. McBride of Pasadena were elected to active membership, and the names of Henry Gray, Rialto, Cal., Nelson Carpenter, Escondido, Cal., R. C. Wueste. 5th and Brook street, San Diego, Cal. and A. Stert, 578 N. Marengo Ave., Pasadena were proposed by Mr. Daggett, to be acted upon at the next meeting.

Mr. Daggett exhibited skins of Barlow's Chickadee and the Point Pinos Junco, and interesting discussion followed. After partaking of light refreshments the meeting adjourned, to meet next month at the residence of Burnell Franklin, South Pasadena.

H. S. SWARTH, Secretary pro tem.

* * *

NEWS NOTES.

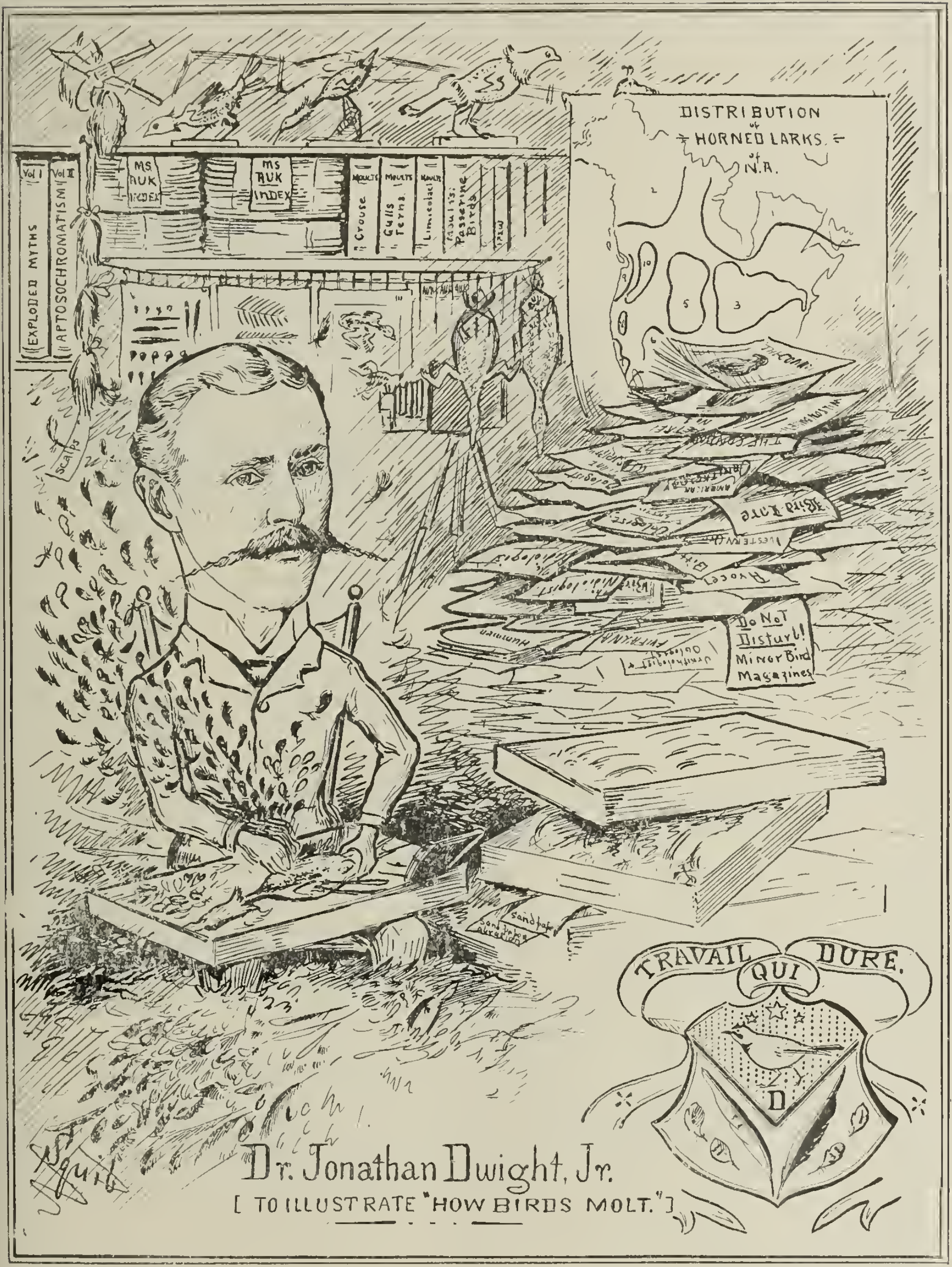
Wm. W. Price, M. A. has issued the usual neat prospectus of his summer camp, which will be situated at Glen Alpine Springs in the Sierra Nevadas from June 15 to September 15. This method of studying zoology is the most delightful imaginable and members of the Cooper Club who have the summer months at their disposal, cannot employ their time to better advantage, nor more pleasantly, than by joining Mr. Price's summer camp.

We are pleased to note the growth of the Nebraska Ornithologists' Union, which held its second annual meeting in Omaha on Jan. 12. The programme shows 22 titles, embracing many varied and interesting ornithological topics. These papers will appear shortly in the 100-page "Proceedings" of the Union and should prove valuable and interesting to the public. The Union now has 64 active and 33 associate members, and is another example of the ability and utility of state ornithological clubs.

American Ornithology, which began publication in January last under the supervision of the well-known dealer, Chas K. Reed, shows a steady improvement, the April and May issues being examples of fine typographical art and of a publication announced as being devoted to "the home and school." Mr. Reed has seemingly created a field of his own and is filling it in a most interesting and praiseworthy manner. The plates are in every way of unusual merit, and the magazine should be accorded the support it deserves. Worcester, Mass. 50 cents a year.

The severe winter in the mountains of California has afforded many records of the Western Evening Grosbeak (*Coccothraustes v. montanus*) for various parts of California. It has thus far been recorded for the winter from Santa Clara, San Geronimo, Napa, Los Angeles, Palo Alto, Stockton, Haywards, Pescadero and Santa Rosa and has doubtless been distributed quite freely over the State. The Band-tailed Pigeon (*Columba fasciata*) has also been abundant in the valleys Santa Cruz and Santa Clara Counties, having been driven from the Coast Range mountains temporarily by erratic snow-storms.

"Snap Shots at Prominent Ornithologists. No. III."



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[TO ILLUSTRATE "HOW BIRDS MOLT."]

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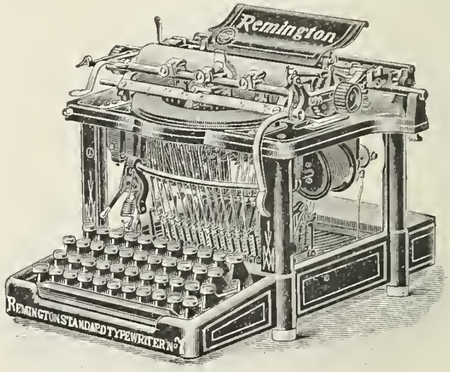

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JULY-AUGUST 1901.

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Cooper Ornithological Club. Santa Clara, California.

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AFIELD IN CALIFORNIA.

We have pleasure in presenting an "informal" photograph of Prof. F. E. L. Beal of The Biological Survey, Washington, D. C., whose sojourn in California has thus been made a "matter of record." Californians will be interested in a likeness of one of the authors of the numerous excellent food bulletins issued by the De

THE CONDOR.

Bulletin of the Cooper Ornithological Club.

A Bi-Monthly Exponent of Californian Ornithology.

Vol. 3. No. 4. **Santa Clara, Cal., July-August, 1901.** $1.00 a Year

Breeding of Hesperocichla naevia in California.

WALTER K FISHER, STANFORD UNIVERSITY, CAL.

THE WRITER spent the greater part of June 1899 at various points in the heavily forested redwood belt, from Humboldt Bay to Crescent City. This belt is comparatively narrow and occupies the low hills and valleys next to the coast. It is a region of dense, luxuriant vegetation, and is a humid division of the Canadian zone. It is not strange therefore that the varied thrush (*Hesperocichla nævia*) should be found breeding here. On June 11, 1899, while collecting in the still dark redwood forest along Lindsay Creek (perhaps five miles north of Vance, Mad River, Humboldt Co.) the writer was surprised suddenly by the outcries of two varied thrushes, which dashed at him from above, much after the fashion of hysterical robins. One of these birds (♀ No. 165248 U. S. Nat. Mus.) was promptly shot, but the male, whose bright colors rendered him conspicuous in the somber forest, slipped away at once, There can be little doubt that the nest was close at hand, for the actions of the birds plainly betokened this. A more or less hasty search failed to reveal it, however, a fact not surprising at least to those who are familiar with the region.

Again on June 28 at the mouth of Redwood Creek, Humboldt Co. (in an air-line about 25 miles north of the previous locality) a male varied thrush was seen. This bird flew into a maple with its bill full of food, but the characteristic haste of a stage-driver rendered further investigation impossible.

The presence of such a bird breeding in this region only tends to emphasize the distinct boreal nature of the belt. In this same locality one finds, *Bonasa umbellus sabini*, *Columba fasciata*, *Colaptes cafer saturatior*, *Contopus borealis*, *Perisoreus obscurus*, *Melospiza melodia morphna*, *Anorthura hiemalis pacifica*, *Parus rufescens*, *Hylocichla ustulata*, *Hylocichla aonalaschkæ* and even other boreal forms.

The Santa Cruz Song Sparrow, with Notes on the Salt Marsh Song Sparrow.

BY JOSEPH GRINNELL.

Melospiza melodia santæcrucis new subspecies.

Subsp. Char.—Relationship apparently nearest to *Melospiza melodia cooperi*, from which it differs in smaller size, in much narrower and weaker bill, and in the greater extent and intensity of the brown markings.

Type—♂ ad., No. 4292, Coll. J. G.; San Francisquito Creek, near Palo Alto, California; June 2, 1900; collected by J. Grinnell.

Coloration—Feathers on top of the head with narrow sooty streaks, broadly edged with chestnut; narrow median crown-stripe drab gray; feathers of mantle, broadly streaked with sooty and laterally margined with hazel and clay color. Wing-coverts, secondaries and tail feathers broadly edged with bright hazel. Postocular and rictal stripes, chiefly hazel. Superciliary stripe, drab gray. Breast and sides narrowly and sparsely streaked with sooty, the streaks running forward into well-defined maxillary stripes; most of these blackish markings are bordered narrowly with bright hazel. Flanks and crissum clay color, streaked with sooty sepia. Rest of under parts pure white.

Range—Along the fresh-water streams heading in the Santa Cruz Mountain Region, from San Francisco south to Monterey Bay.

Measurements—The following are the average measurements in inches of all the adult skins available of the four southern coast races of *Melospiza melodia*.

Subspecies.	Locality.	Skins.	Wing.	Tail.	Culmen.	Depth of Bill	Skins.	Wing.	Tail.	Culmen.	Depth of Bill
cooperi	Pasadena and vicinity	15 ♂♂	2.47	2.81	.47	.28	6 ♀♀	2.33	2.64	.45	.27
santæcrucis	Fresh-water streams P. A.	17 ♂♂	2.41	2.66	.45	.25	11 ♀♀	2.31	2.58	.45	.25
pusillula	Salt marshes S.F.Bay near Palo Alto.	20 ♂♂	2.28	2.46	.44	.24	15 ♀♀	2.18	2.36	.43	.23
samuelis	Salt marshes St. Vincent, Marin Co.	3 ♂♂	2.28	2.50	.43	.23	2 ♀♀	2.15	2.37	.43	.23

REMARKS—This is another case serving to give the fauna of the Santa Cruz Mountain Region an insular complexion. The Song Sparrows from that vicinity have been variously referred to *samuelis* and *heermanni*, but upon comparison with either of these the distinctions are readily perceived. In the neighborhood of Palo Alto the habitats of *santæcrucis* and *pusillula* are immediately adjoining. San Francisquito Creek at its mouth forms a slightly elevated delta sloping away gently into the surrounding salt marsh. Santa Cruz Song Sparrows are abundant and constant residents from the source of this stream in the Sierra Morena, to the final limit of the willows at its mouth. At this latter point we have the interesting problem of two "subspecies" *breeding* literally within a stone's-throw of each other. I have in mind a particular area near the foot of the Embarcadero Road, where a salt slough, its banks matted with *Salicornia*, winds along a willow thicket. Here on May 11, and on several previous occasions throughout the year, I shot typical specimens of both *pusillula* and *santæcrucis* within a few yards of each other, but I have never found either one in the habitat of the other. The full-fledged young of both forms, which are as easily distinguishable as the adults, were secured in numbers, but those of *santæcrucis* always in the willows of the creek and the weed-patches adjoining, while those of *pusillula* invariably came from the *Salicornia* beds. Briefly, I have no evidence whatever that *pusillula* and *santæcrucis* interbreed. The latter, however, is obviously in geographical continuity with *cooperi* to the south, and probably with the still larger *heermanni* of the Sacramento-San Joaquin Basin. But what has been the derivation of the Salt Marsh Song Sparrow? I have no material whatever to show that either of the small marsh forms, *samuelis* and *pusillula*, intergrades with *heermanni.* If geographical intergradation still exists between them, I should expect to trace it among the Song Sparrows occupying the brackish tide marshes where the San Joaquin and Sacramento Rivers flow into the head of San Francisco Bay. But such material is as yet inaccessible to me. Skins from the salt marshes on the north side of the Bay (St. Vincent, Marin Co.) agree exactly with Baird's description of *samuelis.* As the type locality, Petaluma, is within 5 miles of tide water, it seems reasonable to suppose that the type was a tide-land bird. So far, I have failed to learn of a yellow-bellied Song Sparrow being obtained on the north side of the Bay. We are, therefore, to suppose that the Bay forms a barrier between *samuelis* on the north and *pusillula* on the south. The yellowness of the under parts is the most striking character of *pusillula,* and the great majority of my specimens have this character well pronounced. But I have a few skins from the salt marshes near Palo Alto, taken along with yellow examples, which are scarcely or not at all yellow beneath. These closely resemble *samuelis,* but are not so broadly streaked with black dorsally, and the general tone is ashier. Such birds seem to me properly considered as individual variants of *pusillula;* for they are exactly like the more or less yellow examples in every other respect. It has been suggested that Baird's *gouldi* was one of these white-bellied varieties of *pusillula.* This might be decided by a comparison with the type. Some ♀♀ of *pusillula* have the wing 2.10, though this is rather below the average. Perhaps, in view of the above evidence, some would prefer to rank *pusillula* as a species; but its relationship seems to be best expressed by the trinomial.

I have no material from California north of Marin County. Scores of skins are needed from almost every valley in California before we can hope to properly classify the various local races of the Song Sparrow. Although so much alike, they appeal to one with all the more interest; for a study of two slightly differentiated races will certainly give us a clearer insight into the manner and causes of the evolution of species, than if we gave attention exclusively to the completely separated forms.

* * * *

Two Years With Mexican Birds. III. Some Plantation Birds.

BY E. H. SKINNER.

GRAY'S ROBIN (*Merula grayi*) during his stay in the vicinity of Tapachula is one of the commonest varieties. They are present in large numbers late in the winter and spring and almost entirely disappear in summer. The coffee plantations with a heavy undergrowth of coffee shaded by larger trees are the favorite resorts of these birds, very few being found in the deep woods or in pastures. In December a very few arrive and we are made aware of their presence by the lovely song which is occasionally heard, the Mexican Zenzontli being famous for his minstrelsy.

By the middle of February the birds have all arrived, being scattered all over the cafetal, but not going in flocks. Towards evening when the sun comes out after an afternoon shower everything is inexpressibly bright and fresh and the robins seem to appreciate it, for at such times I have heard as many as fifty birds singing as if their lives depended upon it. Besides their song they have a little whistle which is almost exactly like the last seven notes of the familiar air, 'You Can't Play in my Yard', and another gutteral note "chuck-chuck", which, by the way, is their Indian name.

The breeding season commences in April and continues into July. I have taken fresh eggs between April 20 and July 11. The nest is a coarse affair made of roots, moss and mud, well packed together, and owing to the daily showers, a nest generally raises a good crop of grass and weeds around its edges. The nest is placed commonly in coffee bushes, bunches of bananas or any low shrub at from eight to twelve feet from the ground. The extremes which I noted were two and twenty feet respectively. There were as many as 50 nests in the 80 acres surrounding the house. When the young are just beginning to fly the native small boy goes out and captures the little fellows by the dozen, using them to make bird stew. Gray's Robin lays two or three eggs, and although I have examined hundreds of nests I have never found four. There is great variation in size, shape and markings but an average egg resembles those of our Black-headed Grosbeak.

The Black-headed Saltator (*Saltator atriceps*) is a representative bird of Chiapas and is found mostly in flocks in the wooded portion of the lowlands and foothills, flitting about in the bushes and tree-tops chattering harshly all the time. The nest is loosely constructed of twigs and leaves and two eggs are always laid, being blue with heavy black markings at the larger end, similar to the eggs of the Redwinged Blackbird. The nesting season extends from the latter part of April to the latter part of July.

Synallasis erythorthorax is a great deal like a little wren with nothing much to distinguish him but his nesting habits, but here he rivals anything in the feathered kingdom. The nest is usually placed from four to ten feet up in dense bushes and is composed of dry twigs four or five inches long. The bird makes a pile of these sticks a foot in diameter leaving a cavity of three or four inches diameter inside. After this is done a horizontal tunnel two inches in diameter is made, leading away from the nest. At about a foot from the nest at the end of the tunnel another pile of twigs is constructed through which the tunnel turns upward for a few inches. This is the opening of the nest upon which the male roosts while the female is setting. The inner cavity is lined with leaves and three light blue eggs, rarely two, are laid.

I found the Grove-billed Ani (*Crotophaga sulcirostris*) rather common, nesting according to Davie as good birds should. I found sets varying from four to ten eggs and was told by Indians that 20 eggs were sometimes found in a nest, from which it appears that this species has the same habit as *C. ani* of several birds using the same nest. I found one nest of *C. sulcirostris* built on the top of a nest of Giraud's Flycatcher.

The Central American House Wren (*Troglodytes intermedius*) seemed like an old friend to me, flitting about and singing like our wrens at home. They reared their young in dark holes under the rafters of the house and barn and in the hollow trunks of trees. I found one nest in a hollow stump on the ground. The bird lays but three or four eggs, which are lighter than those of our common house wren. This little fellow and the Turkey Vulture were seemingly the only old friends I had in Mexico.

* * *

Scott's Oriole at San Diego, Cal.

SCOTT'S ORIOLE (*Icterus parisorum*) is not rare on the desert slope of the mountains in San Diego County in the migration, but it is very seldom seen between the mountains and the sea here. I saw two males in April, one of these being in the eucalyptus grove in the city park of San Diego. The song of this male was peculiar in some ways, so I followed him around to make sure of the identification. Last Sunday (June 2) I heard the same song in another part of the grove, a few hundred yards from where I saw the bird in April. This would indicate that he had become a summer resident here and probably had a mate. I know of no breeding record of this species in the coast region of San Diego County.

San Diego, Cal. FRANK STEPHENS.

An Exceptional Set of Eggs of the Wood Duck.

ONE of the prettiest spots in San Joaquin County is located in the extreme north-west portion of the county and is known as "Forest Lake." Previous to last year I had never visited the lake and as the name seemed to suggest a likely place for birds, I inquired of the farmers living in the vicinity as to the prospects of finding ducks breeding there and was informed by all that this was a favorite haunt of the Wood Duck. (*Aix sponsa.*)

I therefore determined on a trip to the place and April 29, 1900, in company with my brother and a friend, we started from Lodi on our wheels about 5.30 A. M. and reached the lake about 8.30 A. M. Dismounting we immediately strapped on our baskets, arranged the other necessary collecting apparatus and started along the north side of the lake, keeping a sharp lookout for any suggestion of a nest.

We had not proceeded far before a male Wood Duck arose from the water's edge and beat a hasty retreat. Thinking that his nest might be in the vicinity we began a thorough search and were soon rewarded by finding the nest located in a deserted home of a Red-shafted Flicker and placed about twenty-five feet up in a white oak tree. The tree was quite large but after a difficult climb my brother reached the opening and inserting his hand drew the female bird from the nest. He informed us that the nest was full of eggs, which fact was made very evident after he had taken out twenty-one eggs and landed them safely on *terra firma.*

The number of eggs in the set led me to believe that the nest was occupied by two pairs of birds, but after a thorough search of the lake I failed to find but one pair, notwithstanding the fact that I had been informed that the birds were quite numerous in the locality. However I was well pleased with my prize and after taking several sets of Swainson's Hawk (*Buteo swainsoni*) started homeward.

I now have the eggs before me and my belief in the double occupancy of the nest is made stronger by the fact that nine of the twenty-one eggs are somewhat darker in color than the remaining twelve and are also, as a whole, slightly larger, as the following measurements will show 2,06x1.50:2.12x1.50: 1.93x1.56: 1.93x1.50: 1.93x1.50: 1.93x1,50: 2,06x1.50: 2.03x1.47: 2.00x1.56: 2.00x1.56: 1.87x1.43: 1.93x1.47: 2.00x1.50: 1.93x1.47: 2.00x1.47: 2.00x1.50: 1.93x1.50: 2.00x1.50: 1.93x1.50: 1.93x1.47: and 1.93x1.43. Taken in their order, the first nine measurements are those of the dark colored eggs while the remaining twelve are of the light color.

Incubation had already commenced in four of the dark colored eggs and in six of the light color, thus showing that they must have been laid by the same bird or by two birds occupying the nest at the same time. Had incubation been more advanced in one color than in the other, I would have been led to believe that the pair of birds found in possession of the nest must have driven the first pair away and continued adding to the number of eggs already in the nest, but the state of incubation in the two colors has shown that such could not be the case.

After considering all the points in favor of the theory of two pair of birds occupying the nest at the same time, it seems to me that they are stronger than those in favor of one pair of birds, as the best point for the latter theory is the lack of another pair of birds in the vicinity, while the number of eggs in the set and the difference in color and size are certainly good points in favor of the former.

This is the first instance I have had brought to my notice of a decided difference in color and size of a large set of eggs of the Wood Duck and may only be in this case a freak set. However I would like to hear further notes on this subject from other members of the Cooper Club.

Stockton, Cal. WALTER B. SAMPSON.

A New Species of Geospiza Collected by the Hopkins-Stanford Expedition to the Galapagos Islands.

BY ROBERT E. SNODGRASS AND EDMUND HELLER.

Geospiza heliobates, new species.

Type.—Adult male, No 4186, Leland Stanford Junior University Museum; Mangrove swamp at Tagus Cove, Albemarle Island, Galapagos Archipelago, June 24, 1899.

Range.—Mangrove swamps of Albemarle and Narborough Islands, Galapagos Archipelago.

Specific characters.—Very similar to *Geospiza pallida*, resembling it in coloration, but having a smaller bill—the culmen being 16 mm. or less in length while in *G. pallida* it is 17 mm. or more in length.

Description of the type.—Above dark brown with an olive tinge on the rump, all of the feathers of the dorsum with narrow pale olive-grayish edgings. Wing and tail feathers lighter, more smoky-brown. Lores, sides of head and underparts dirty buffy-gray, brownish-buff on the sides and flanks. Lores spotted with brown. Feathers of the breast and sides with dark brown central areas forming spots of the same color. Tips of the greater and the middle wing-coverts rather indistinctly brownish-rufous, forming two inconspicuous cross bands. Under wing-coverts grayish; under tail coverts brownish-buff with pale grayish edgings. Under surface of wing and tail feathers grayish brown. Bill black. Feet dark brown. Length 123 mm., wing 72, tail 48.5, culmen 16, gonys 8, width of bill at base 6.5, depth of bill at base 9, tarsus 21.5.

Adult female.—Female specimens having the plumage very much worn are almost identical in coloration with the males, but generally have fewer and smaller spots below. Above the plumage is blackish on the head, almost pure olive-brown on the back, with the central areas of the feathers darker. Wing and tail feathers dark brown with olive-buffy edgings.

This species inhabits exclusively the mangrove swamps of Albemarle and Narborough Islands of the Galapagos Archipelago, being found in the swamps all along the east shore of Narborough, and in the swamps on Albemarle at Tagus Cove, Elizabeth Bay and Villa Mil.

We have fourteen adult males, twelve adult females, two immature males and six immature females taken in January, February, March, April and June, 1899.

MEASUREMENTS OF *Geospiza heliobates*.

L. S. J. Univ. Mus. No.	Locality.	Sex.	Length.	Wing	Tail.	Culmen	Gonys.	Width of bill at base.	Depth of bill at base	Maxilla from nostril.	Tarsus.
4186	Albemarle Id.	♂	123	72.	48.5	16.	8.	6.5	9.	10.3	21.5
4161	" "	♂	126	70.	48.5	16.	8.	7.	8.	11.	21.5
4226	" "	♂	133	71.5	45.	15.5	8.5	6.5	8.	10.5	23.5
4266	" "	♂	127	69.	39.	16.	8.	6.5	8.	10.5	21.5
4177	" "	♀	112	70.	42.	14.5	8.	6.7	7.7	10.	21.
4213	" "	♀	142	70.	42.5	16.5	8.7	6.7	8.	11.	21.7
4213	" "	♀	136	68.	41.5	15.	8.5	6.	7.5	10.	21.
4242	" "	♀	120	70.	45.	16.	8.5	7.	8.7	10.	22.

* * *

An Outing for Owls' Eggs.

BY PROF. P. M. SILLOWAY, LEWISTON, MONT.

WITH the genuine egg-crank, the first oological excursion of the season is a red-letter day, provided that it results in tangible additions to one's cabinet. As I glance at the seven eggs of the Western Horned Owl (*Bubo virginianus subarcticus*) reposing in their downy trays as the first fruits of another oological season, I note the 16th of March, 1901, as one that will be readily recalled among an egg-crank's reminiscences. True, sets of the Western Horned Owl are neither especially rare nor difficult to secure, but when

Saturday is the only available day and magnificent distances must be traversed in this region to cover the ground, two sets of this species may represent a fair day's work. I am disposed to make the statement even stronger, for the following Saturday was spent in a fruitless tramp up one "coulee" and down another, a gentle blizzard prevailing most of the time; and upon my return, worn and weary, I passed most of the following evening reading about the taking of Horned Owl's eggs and congratulating myself that the excursion of the previous Saturday had resulted so satisfactorily.

Early in the morning of March 16, we set out for a drive along the creek which hurries through our home town, forming a narrow bottom, set here and there with cottonwoods overtopping the haw and willow thickets. Most of the hawk's nests along our route were well-known to me, and this fact presented a well defined method of procedure,—the inspection of all the old nests within reach that day. Owing to the heavy condition of the roads and other hindering circumstances, about eleven o'clock we found ourselves not more than ten miles from home, but near a promising grove containing a nest that formed a huge black spot among the naked branches of the cottonwood clump. We approached the place with that indefinable feeling known only to the egg-crank when he is nearing what may be a good thing but is yet of doubtful outcome, anticipation crowding to the front only to be met by the ghost of disappointment. But see! there on the rim of the nest stands the lord of the household, and above the dark outline of the stucture projects the tell tale tufts of the sitting housewife. A moment later we can see her eyes staring upon us with angry defiance, and her plumicorns flutter in the wind as she raises her head to glare upon the intruders of the wildwood premises. Alarmed at the invasion, the male drops downward and flaps down the creek, and in another moment the female deserts her home and flies across the stream to another grove, leaving us master of the situation.

The nest was in a triple crotch in the main part of the tree, which was a medium-sized cottonwood (medium-sized for Montana, not Illinois), the lower half of which was thickly grown with sprouts and deadened branches. One of the boys ascended to the nest, while I occupied the anxious seat and gave sundry directions to the climber. In a short time he drew himself up over the nest and shouted, "Four eggs, bigger than hen-eggs." Giving him repeated suggestions regarding the packing and lowering of the eggs, I danced around upon the ground below, until presently I reached up and grasped the lard pail containing the treasures. Ah, what relief when the spoils were placed safely beside the lunch basket, and the notes hastily jotted in my tablet! A chip was knotted into the chalk-line at the brim of the nest, and when measured with a five foot tape line showed a height of thirty-two feet nine inches from the ground. The nest was one of last season's use by either Swainson's Hawk or the Ferruginous Rough-leg, and had been prepared by a scant supply of downy feathers, probably furnished by the present occupants of the nest.

The next objective point was a nest about three miles back toward home. Having eaten our lunch, we turned and followed the water course until we reached the second nest, which like the first was a conspicuous mark, being in a lone cottonwood leaning directly over the water. Riding forward with the mad gallop common to Montana cowboys, the boys returned and announced, "She's on there all right. Them horns give her away." Sure enough, there sat the angered mistress of the Bubo mansion, with head reared to face the unusual visitors. This Mrs. Bubo required more demonstration to cause her to desert her home, but when the climber began to scratch among the lower branches she dropped down behind the trunk and flew to cover up the creek.

This nest was made in a crotch of an oblique part of the tree, somewhat separated from the main portion, furnishing a most exposed site. The nest in the preceding season had been lined with bark and binder twine, most of which yet remained. A few downy owl's feathers had been added to make the structure habitable, and there the climber found three eggs. As there was water below the nest I had to jump a portion of the stream to receive the eggs; and as usual in such instances, my elation at finding the products of this second Bubo overcame my ordinary caution and I landed one foot plump into the freezing water. The second set was soon placed in safety, however; the height of the nest was thirty-eight feet from the water. It is interesting to note that during all the proceedings incident to our spoilation of this nest, the head of the family sat quietly in an adjacent thicket, and was not observed until we were about to leave the place.

The eggs of the first set varied in incubation from fresh to abundance of blood. Two of them had been clawed by the heavy feet of the sitting bird, but the claw mark of one came in such position, being about the middle of one side, that it could be used for the drill hole. The other showed three claw perforations, and only one of them could be hidden by the drill. The eggs of the second set were fairly fresh, one showing some blood. It is evident that setting or incubation begins with the laying of the first egg.

This paper should properly end here, but the peculiar part of the record is yet to come. Of course I visited all the old nests along the creek bottom until I reached home, but found no more owl's nests. It is needless to look for hollow trees in these bottoms, for none of the trees grow large enough to have a cavity that will contain a Horned Owl crosswise. The foregoing applies merely to the cottonwoods and aspens of the creeks, not the pines of the mountains. But this is not the peculiar thing I meant to mention,

Upon our arrival at home, my wife with proper curiosity desired to see the products of the day's outing, Having learnedly told her on previous occasions that owls' eggs are always white, I unpacked the two sets and spread them out before her.

"Why, I thought you said they were white," she exclaimed.

"They are," I averred. "Don't you call that white?"

"Of course not," she replied, with a smile at my apparent ignorance of colors "Can't you see that they are green?"

And sure enough, Mr. Editor, those eggs of the Western Horned Owl have a decided greenish tinge. They are really not white at all.

* * *

The Bullock's and Arizona Hooded Orioles.

BY J. F ILLINGWORTH, PALO ALTO, CAL.

OF ALL the birds that visit Southern California in the spring the orioles are certainly the most interesting. Every bird lover knows what a thrill of pleasure passes through him as he notes the first return from the south. Usually the Bullock's Oriole (*Icterus bullocki*) arrives in Los Angeles Co. several weeks before the Arizona Hooded Oriole (*Icterus cucullatus nelsoni*). From my migration notes for the last four years Bullock's arrived March 19 to April 10 and the Arizona Hooded from April 4 to May 1, but usually the latter came late in April. The males of both varieties precede their mates by about two weeks, and the nest is commenced shortly after the arrival of the females. The adult Bullock's Orioles generally give theirs a firm support between two or more small branches, or place it in a crotch so as to lessen the danger from the winds. It is interesting to note that the young birds are much less skillful in nest building than the adults. The materials used are not only different but the nest is quite often swung loosely to the twigs above, so that it is at the mercy of every wind. The material used by the young birds for the construction of the nest is mostly coarse vegetable fibre and they seldom line their first home. The older birds, however, discover that twine, horsehair etc. make a much stronger and neater wall for their home and also that fluffy chicken feathers and bits of cotton batting are excellent lining. They are quite expert in concealing their nest by bringing down green leaves and tying them about the outside. This is so well done that to a casual observer it would appear only as a thick bunch of foliage. The older birds often do most excellent weaving and I have taken one nest composed entirely of horeshair, the sides being as smooth as a piece of camel's-hair goods. This nest is heart-shaped and has a circular opening at one side of the top, which has a diameter of only 1.65 inches, hardly large enough to admit the birds. The nest is four inches deep and four inches across inside, and is lined with soft chicken feathers and cotton batting. The quills of the feathers are pushed through the sides of the nest so that they will keep their places.

Until the season of '97 I have never known the Bullock's Oriole to use palm-fiber in the construction of its home, but I found a nest May 11, 1897 in a peach tree, composed entirely of this fiber. It was well lined with chicken feathers and placed between several small branches. A pair of Bullock's Orioles built a nest this year in an almond tree near the porch, and I had an excellent opportunity to watch them while they were at work. The place chosen was in a wide fork between four small branches. Both birds worked on the nest and as soon as they had loosely formed the walls or framework, one of them worked inside and the other outside. The latter would bring a horse-hair or a piece of twine in its beak and pass the end through the wall of the nest to his mate inside who took the end and passed it out again through another place. In this way the nest was soon woven quite smooth and looked as if it had been made with a darning needle by hand. This nest is very peculiar in shape, the sides being woven to the surrounding twigs which makes the opening at the top very large and causes the nest to look like a double one. The opening is six inches long and three inches wide and the nest is five inches deep inside. It is difficult to find two nests of the Bullocks' Oriole alike in shape or material, as they use almost anything they can find in the way of fiber.

The nests of the Arizona Hooded Oriole on the other hand are very much alike, and I have never found one made of other material than the palm-fiber. The locations, too, are similar, a tree with large leaves being usually selected and a favorite position is under the broad, corrugated leaves of the palm. These form an excellent shelter from both rain and sun. They drill holes through the thick leaves with their sharp, slender beaks and tie the nest to them with palm-fiber. Often the nest is hung between several leaves such as those of the fig tree, when holes are cut and the palm-fibers laced in and out through them, thus drawing the leaves together to form the outside of the nest. The leaves not only aid in the nest structure but also form the best possible concealment.

An average nest of Arizona Hooded Oriole is 3.50 inches deep and 2.50 inches wide inside measurements, while the outside is about four inches deep and four across. Nests of both the Bullock's and Arizona Hooded Orioles are frequently taken possession of by House Finches, sometimes even before the orioles have finished them, but more often after they are deserted. When the House Finches take possession of the nest they re-line it with their own characteristic building material.

The orioles are very beneficial to the horticulturist, although they eat some early fruit such as berries, cherries etc., but no fruit man will begrudge them these if he thoroughly understands their habits. The chief food of the orioles consists of insects and injurious caterpillars, and I have often watched them while they were searching among the branches for this latter food. They are particularly fond of a small green caterpiller that destroyed the foliage of the prune trees a few years ago. The orioles are often seen in the berry patches but they are usually in search of insects as is proven by the examination of a great number of stomachs.

* * * * *

Notes on Some Little-known Birds of Southern California.

BY EDMUND HELLER.

Colymbus auritus. Horned Grebe.

A few were seen on a small lake near Riverside in the winter of 1893. One of these was secured. None have been observed there since.

Sterna forsteri. Forster Tern.

Found common at Elsinore Lake, June 2, 1896. Said to breed by a local collector.

Hydrochelidon nigra surinamensis. Black Tern.

Observed at Elsinore Lake, June 2, 1896. Less common than the Forster Tern, but also said to breed.

Steganopus tricolor. Wilson Phalarope.

One specimen obtained at Riverside in the winter of 1891.

Totanus flavipes. Yellow-legs.

Noted twice at Riverside during the fall migration.

Totanus melanoleucus. Greater Yellow-legs.

A common migrant at Riverside.

Lophortyx gambeli. Gambel Partridge.

Found fairly common in May, 1896, at Warren's Wells, a small station on the Mojave Desert at the south-eastern base of the San Bernardino Mountains.

Melopelia leucoptera. White-winged Dove.

While at Warren's Wells the miners told me of a white-winged dove which occured at Twenty-nine Palms, a station some thirty miles farther east. From their description I judged it to be this species. If correct future exploration should prove its presence, which would make an addition to the list of California birds.

Haliæetus leucocephalus. Bald Eagle.

I was assured by a local collector, that a pair of Bald Eagles had nested for a number of years near Elsinore Lake.

Dryobates scalaris bairdi. Texas Woodpecker.

Several collected at Warren's Wells on the Mojave Desert in May, 1896.

Dryobates scalaris lucasanus. Saint Lucas Woodpecker.

Found common at Whitewater at the head of the Colorado Desert in May, 1896. One secured at Riverside in April, 1895.

Harporhynchus bendirei. Bendire Thrasher.

Found fairly common in May, 1896, at Warren's Wells, where this species was more numerous than *H. lecontei*, which also occured. Specimens were secured.

Two Amusing Incidents.

ON SATURDAY February 22, 1896 occured the first of what I have denominated "two amusing incidents." It relates to an experience that I had, on that date, with an Anna's Hummingbird (*Calypte anna*). I happened to be collecting in a large dense grove of eucalyptus trees in this county, and in one of these I discovered a nest of the above species. On my shaking the tree the female flew off the the nest, which was placed on a very thin limb and about fifteen feet from the ground. The main trunk of the tree was so thin and frail that I was compelled to climb another and stronger tree that grew some fourteen feet away, in the direction in which the horizontal limb pointed. I ascended this latter tree until I was on an even height with the nest and, reaching out with my right hand, I pulled the branch on which it was placed to me, and grasped the end thereof with my left hand. The female had alighted on the nest while I was climbing and still remained thereon. I shook the branch vigorously but the bird, undismayed, paid no attention whatever to me until I placed my hand within two or three inches of her, when she snapped at me ferociously several times. It was not until I had actually taken hold of the mandibles and lifted the bird from the nest that I was able to discover two fresh eggs therein.

But this is not all: while I was removing the eggs the hummer kept buzzing and darting around in close proximity to my head. After the eggs had been taken from the nest the female immediately flew back onto it and was determined to stay there. Being desirous of procuring the nest, I reached over the bird and severed the limb between the nest and the trunk. In my doing this the nest became completely inverted but still the persistent little hummer clung to it, and when I dropped the detached limb the bird remained on the nest, which was still in this inverted position, for fully ten feet of the fall, when she finally released herself and flew off. I have had considerable experience with hummers and have often noted the bravery of these birds, especially Anna's, but I must confess that this was the bravest and most persistent one with which I ever met.

My second topic relates to an experience of mine with a California Screech Owl (*Megascops asio bendirei*). Under date of May 9, 1897, my note book reads as follows; "An amusing incident occured during my trip today. I discovered a natural cavity in an old oak stump, which I considered would be a fitting receptacle for a set of Screech Owl's eggs. Walking up to the stump I projected a stick into the hole about two feet, when a female Screech Owl flew out and disappeared through the trees. I soon became aware that the stump was occupied in the upper story by a colony—and a large and warlike one it was—of honey bees, one of the beasts trying his best to alight on the end of my nose and place a wart thereon. This meant that I must retreat to safer quarters. I was convinced that the cavity contained either eggs or young and was reluctant to leave without ascertaining what the contents were. But the bees were so thick and wild that I determined to wait until my return homeward in the evening by which time I supposed that the bees would be inside and would not bother me. We continued on our journey and had not proceeded one hundred feet from the stump, when we observed Mrs. Owl perched on a dead oak limb in a dazed condition—asleep I suppose. One of the boys who was with me took hold of the bird and she then barely opened her eyes and lay perfectly numb in his hands. Two bees were found on the mandible evidently trying to sting her. One of her eyes was badly blood-shot and she was apparently a very sick owl. She remained entirely senseless in the hand until we placed her on another limb and continued on our way. We returned over the same course some five hours later and imagine our surprise when, on reaching the last mentioned place, the first thing that met our gaze was the remnants of a perfectly fresh Screech Owl's egg. This egg lay broken on the ground directly beneath the spot where we had last placed the bird. The broken shell was soft and pliable and was all coiled up. The white and yolk were of a very thin and watery nature. I found the owl a few feet away on the ground, among some thick shrub roots. She was in the same numb, senseless condition, and I took her in my hand and placed her again in the cavity, where she immediately became very active.

In my opinion, there are two ways of solving this problem, if such I may call it. Either the owl was in such a sleepy, insensible state that she dropped the egg in the ordinary course of laying, supposing she was on the nest, or she was so overcome by fright or pain that she was compelled to drop it. The former seems the more plausible theory.

This incident may serve to open up the question as to whether a female bird has, under any circumstances or conditions, any control whatever over the laying of her eggs, or whether, when the time comes, no matter where she finds herself, she must then and there deposit them. I think that it would be a very interesting question to discuss.

A. I. McCormick.

Bakersfield, Cal.

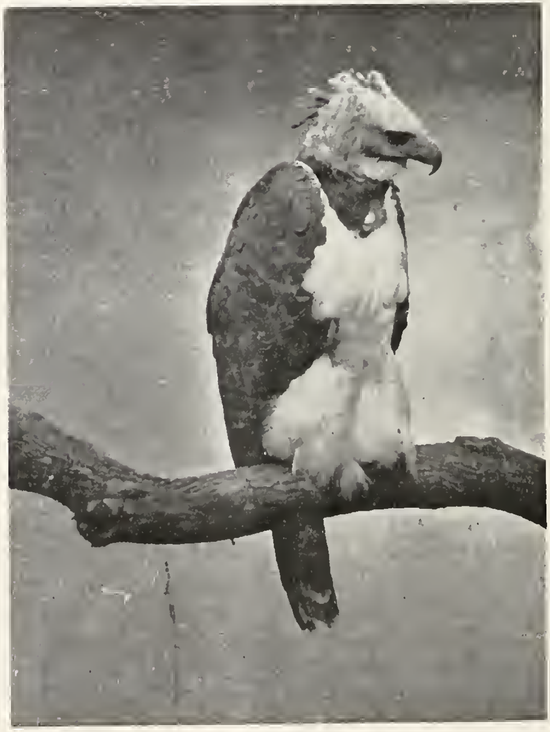

Photo from life by Mr. J. G. Dudley

HARPY EAGLE. (*Thrasaetus harpyia.*)

We are indebted to Mr. A. B. Baker of the National Zoological Park, Washington, D. C., for the photograph of this interesting eagle. Mr. Baker informs us that "the bird was presented by the Governor of the State of Amazonas, Brazil, to Commander C. C. Todd of the U. S. S. Wilmington for the National Zoological Park It has been at the Park for two years and is still apparently in perfect health "

A Study of the Birds of Santiago Canyon.

MOLLIE BRYAN, ORANGE, CALIFORNIA.

Concluded.

I RETURN to the shade of the oaks and the hammock, and the scene is changed. The woodpecker and bluejay are busy stealing from the kettle of mush as it cools on the stove for the pack of fox hounds. The Lark Sparrow comes quietly into the basin under the vines for water. The Spurred Towhee is scratching among the leaves with its accustomed vigor. The California Thrasher comes at the call of "huita, huita" for its share of mush or bread crumbs, and lingers to dig with its long sickle-shaped bill, among the flower beds. A bluejay cocks up one eye and come to see what is in the hole, driving the thrasher away and digging in exact imitation of it. The day goes out with the sweet vesper song of the Lark Sparrow and the soft call of the Poor-will.

When October days have come the roadsides are bordered with the scarlet zanschneria, the yellow threads of the dodder are in a wild tangle over sumach and sages, the cliffs are gorgeous with brightening lichens and sycamore trees are turning to brown and gold. The Meadowlark whistles from the mesa, the Vesper Sparrow is in the dry washes by the roadside, and flocks of Horned Larks are feeding in the fields. The Mountain Bluebird flashes across the way like a bit of fallen sky, and the Roadrunner passes swiftly from our sight, as we drive on our way.

Let us, now, take another glimpse at our bird paradise. The White and Golden-crowned Sparrows and Audubon's Warbler have taken posession. The Wren-tit still rings out its clarion notes, the bluejay is as mischievous as before and the woodpecker is studying a piece of water-pipe left on the fence to see if it is a suitable place in which to store acorns. Life under the arbor is now something to be dreamed of. Tom, the Plain Titmouse, comes for the melon seed he has learned to love, and that are scattered regularly for him. When gathered around the hospitable board, and with mountain appetites we pass our plates for a second helping, and are told "Wait till Tom gets his seed." Plates are held, forks suspended in the air while 'Tom' hops in between the chairs for his seed, then all breathe and eat again. We are up at five to catch the Lark Sparrow at his morning song. And we see that one by one, the ravens come from somewhere out from the face of the cliff across the canyon. What music in their harsh "caw, caw" to bird-crank ears, for it is a promise of days to come, when from a point of vantage gained by hard climbing, we will sit and spy on the family affairs of at least two households of ravens, one on a ledge of a cliff, the other in a tree hard by.

The hills about us echo with the call of the Valley Quail, for they have learned that only about here are they safe from the huntsman's gun. The robins and Western Bluebirds have come and are feeding on the California holly and mistletoe berries. A visit to the tank brings us face to face with other of our winter visitors. The Hermit Thrush is twitching wings and tail from every bush, and a flock of Townsend's Sparrows are chattering socially over not a cup of tea,—but a limpid pool of water. A number of Wren-Tits come to examine their visitor. One comes within two feet of my face, and finding me harmless, descends, twig by twig, to the pool below for a bath. It hops from a small overhanging bush above the water, daintily dips one toe in, and darts up in alarm. The second time it wet both feet before nervously flying up again. The third time it stepped in and gave a flutter with its wings, when back to shelter it went. It continued these vain attempts at a bath until the seventh, when it took a thorough washing and I thought "like Naaman, it must dip seven times." But no. It returned again and again until at the fifteenth it considered itself completely cleansed. Then the long, elaborate toilet had to be made.

On slowly descending through the crack in our broken bowl, I discovered a flock of Plumed Quail dusting in the dry earth below me. One was walking about, plume erect, keeping guard while the others enjoyed *their* bath. What beautiful birds, and how seldom we see them so low in the mountains, but here at the foot of Santiago Peak they over-lap the range of the Valley Quail. The Canyon Wren is again peering among the rocks for its dinner, and the bushes are alive with other feathered forms. But it is the season when arbor days are past and four walls must be endured, that bird pans are placed before the window and a feed board spread with corn meal, brings all the members of the sparrow family. Townsends, the Gambel's and Golden-crowned Sparrows, California and Spurred Towhees and juncos are all here. The first rain brought a pair of Varied Thrushes. In the midst of the downpour the male was seen taking a bath in a pool near the house.

In December come flocks of Band-tailed Pigeons and juncos are more plentiful. But this, like Tennyson's song of the brook, might go on forever. But the winter sun *will* set and the Gambel's and Golden-crowned Sparrows open their evening concert. The Valley Quail come whirring into the trees above the arbor for a safe retreat, and the night is ushered in by the clear sweet warble of the Lark Sparrow, that in the quiet spot seems to add a benediction to these days of bird study.

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Echoes From the Field.

Western Evening Grosbeak Again. On April 29 at Angwin's Hotel near Saint Helena, Cal. I saw a flock of about thirty Western Evening Grosbeaks (*Coccothraustes v. montanus.*) They were observed the day following also. A Cassin's Vireo had built a nest in a walnut tree in front of the hotel. On April 20 I found a nest of the White-tailed Kite containing four eggs, incubation advanced. The nest was situated in a small live oak tree in a marsh, fourteen feet up.
F. C. CLARK, Napa, Cal.

Early Nesting of the Red-bellied Hawk. On March 22, 1901 I took a set of three finely-marked eggs of *Buteo lineatus elegans* from a nest in a blue-gum tree at 43 feet elevation. A set of two eggs had been taken from the same nest last year on April 15. The nest was made of small sticks and lined with willow twigs to which were attached the green leaves and blossoms. The nest also contained a few feathers from the parent bird. This, I believe is a very early nesting date for this species.
NELSON CARPENTER, Escondido, Cal.

Parasites in Birds. Judging from my experience, the Valley Partridge (*Lophortyx californicus vallicola*) is singularly free from parasites. I have taken the entrails from at least ten thousand of these birds which I have shot in many parts of California and Lower California without finding a worm of any kind in them. Hawks, owls and fish-eating birds are seldom free from worms. Of the latter the terns of the coast are more likely to be free from them than most other water birds, many of which are killed by worms, especially the Brown Pelican (*P. californicus.*) When preparing specimens I have often admired the wise discrimination of Moses in specifying the things that are clean and those that are unclean, though I could not see the necessity of prohibiting the eating of that which died, nor why the Jew was authorized to sell the same to the stranger who was within his gates. L. Belding, Stockton, Cal.

Curious Nest of Anna's Hummingbird. On Feb. 23 I collected a nest of Anna's Hummingbird (*Calypte anna*) 60 feet up in the very top of a tall gum tree. The hummingbird had used one side of an old goldfinch's nest, and there she had a soft nest of feathers. This bird evidently had an eye for business, as the goldfinch's nest, cosy in itself only required a little lining. Unfortunately the one egg which the nest contained was broken in getting it down; the nest I regard as a "freak," as I have never heard of a hummingbird using any old nest except its own.

On April 5 a friend bronght me two eggs of the Killdeer (*Ægialitis vocifera*) taken in the middle of a railroad track, directly between the ties. This track is the main one on the Santa Fe between Santa Monica and Los Angeles and at this place runs through the Ballona swamp. W. Lee Chambers, Santa Monica, Cal.

Breeding of the Western Robin in Lake Co., Cal. From time to time I have been informed that the Western Robin (*Merula m. propinqua*) nested in Lake Co., at about the same elevation as Clear Lake, which is between 1400 and 1500 feet. I have long been anxious to verify this statement but until June 12 of this year had been unable to do so. On that date I was walking in the lower foothills when an old robin with food in its bill flew past me into a white-oak tree, when observing me, it began to screech most vociferously. Looking the tree over carefully I discovered a nearly fully-fledged young bird sitting upon one of the branches, and further search in near-by trees revealed another young robin. Neither flew well or willingly and were apparently not long out of the nest. Since the beginning of May I have noticed four distinct pairs of Western Robins; one pair on the ranch here whose two young I observed; another pair on the road to Upper Lake, whilst the two remaining pairs have frequented an orchard at Upper Lake. I have had the pleasure every Saturday since early in May of seeing one or more birds there, but have failed to discover a nest or other sign of their having bred. A. W. Johnson, Upper Lake, Cal.

Notes on the Loon, Evening Grosbeak and Broad-tailed Hummingbird. While at the Hatchery on Battle Creek, California, in the fall of 1898, I secured a loon which came ashore entangled in the salmon seine. The specimen was taken alive and uninjured. Similar catches have been reported previously from the eastern United States. Dr. C. W. Richmond, who kindly identified the bird, pronounced it *Gavia imber*.

On February 24, 1901, Mr. Walter E. Bryant secured two specimens of *Coccothraustes v. montanus* at Santa Rosa, Cal., and tells me there were several others in the trees near his house.

Some time ago (*Auk.* XIV p. 91) I recorded the Broad-tailed Hummingbird (*Selasphorus platycercus*) from Oakland. While the record was correct, it had been reported previously for the state. Dr. J. G. Cooper took a female at Lake Tahoe many years ago (*Proc. Cal. Acad. Sci.* 1st ser, IV, p. 7). It is also reported from the Sequoia National Park and as common on the western slope of the Sierra Nevada in California opposite the head of Owen's River (*N. A. Fauna, No. 7, p 59*).

R. C. McGregor U. S. S. Pathfinder.

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Chas. W. Bowles of Waldo, Oregon, writes of taking four sets of Black-throated Gray Warbler's eggs and a set 1/3 Pileated Woodpecker, thus confirming the suspicion that the Northwest is the oologist's paradise.

PACIFIC COAST CHANGES IN THE CHECK-LIST.

The tenth supplement to the A. O. U. Check-List contains additions of especial interest to Coast workers. These were acted upon at the recent session of the A. O. U. Committee on Nomenclature, and a list of the accepted forms occurring on the Pacific Coast is here given.

Ardea herodias fannini CHAPMAN, Northwest Coast Heron, Queen Charlotte Ids. and coast region of British Columbia; *Canachites canadensis osgoodi* BISHOP, Alaska Spruce Grouse, Upper Yukon region and thence northwest to Prince William Sound and Cook Inlet; *Lagopus leucurus altipetens* OSGOOD, Southern White-tailed Ptarmigan, Southern Rocky Mts., (Colorado, New Mexico etc.); *Empidonax insulicola* OBERHOLSER, Santa Barbara Flycatcher, Santa Barbara Ids., Cal.; *Perisoreus obscurus griseus* RIDGW., Gray Jay, British Columbia, Washington, Oregon and northern California east of the Coast and Cascade Ranges; *Ammodramus rostratus halophilus* (MCGREGOR), Lagoon Sparrow, Salt marshes in the vicinity of Abreojos Point, Lower California; *Pipilo maculatus atratus* RIDGW., San Diego Towhee, Southern coast district of California, south of San Fernando and Sierra San Gabriel, and south to Lower California; *Pipilo fuscus carolæ* MCGREGOR, Northern Brown Towhee, Northwestern California; *Dendroica nigrifrons* BREWSTER, Black-fronted Warbler, Sierra Madre of Chihuahua, Mexico north to the Huachuca and Chiricahua Mts., Arizona; *Geothlypis trichas arizela* OBERH. Pacific Coast region, from Southern British Columbia to northern Lower California, west of the Cascades and Sierra Nevadas; *Thryomanes bewickii charienturus* OBERH., Coast region of Southern California north to about Pasadena; Santa Catalina Island; *Thryomanes bewickii calophonus* OBERH., Pacific slope, from Oregon to southern Vancouver Island and valley of Fraser River, British Columbia; *Anorthura hiemalis helleri* OSGOOD, Kadiak Winter Wren, Kadiak Island Alaska; *Anorthura meligera* OBERH., Aleutian Wren, The westermost islands of the Aleutian group, Alaska; *Certhia familiaris zelotes* OSGOOD, Sierra Creeper, Cascade Mountains of Oregon and the Sierra Nevada of California; *Chamæa fasciata phæa* OSGOOD, Coast Wren-Tit, Coast region of Oregon and California from Astoria, Oregon to Marin Co. California; *Regulus calendula grinnelli* W. PALMER, Sitkan Kinglet, Sitka district, Alaska; *Hylocichla ustulata almæ* OBERH, Alma's Thrush, Yukon Basin, south to the Rocky Mountains region, and west to Utah and eastern Nevada.

The following changes are also of interest: Our *Colaptes cafer* becomes *Colaptes cafer collaris*, the former being restricted to Mexico; *Sayornis nigricans semiatra* is assigned to the Coast as follows: "Pacific Coast of the United States and Mexico, from Oregon to Colima, eastward to Arizona"; *Zonotrichia leucophrys intermedia* becomes *Zonotrichia l. gambellii*, while the former *Zonotrichia leucophrys gambellii* is changed to *Zonotrichia l. nuttalli*.

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COMMUNICATIONS.

A BOON FOR OOLOGISTS.

Editor CONDOR:—

A saturated solution of cooking soda is quite effective for removing embryos. As an illustration of its work, last night at 6 P. M. I found a Black-throated Gray Warbler's nest with four eggs, certainly not less than three-fourths incubated, the shell being so soft that the drill sank into it. I put in as much soda as the eggs would hold and changed it once during the evening. This morning they were reasonably easily blown before 8 A. M., two perfect specimens, the holes being not much larger than for fresh eggs; the other two have a small nick in each hole but are perfectly strong. The embryo was shaved off with a sharp knife as it was forced out. It was equally successful on Northwest Crow 1-5, California Jay 1-6 and Oregon Junco ${}^{1}{}_{4}$. It is probably too late for many to try it this year, but possibly you can test it. The principal advantage over other chemicals is that it does the work quickly.

CHAS. W. BOWLES.

Waldo, Oregon, June 15, 1901.

[We were happily enabled to test Mr. Bowles' process on a badly incubated set of Calaveras Warbler, the results being a pleasant surprise. By blowing out the softer parts of the embryos and filling the eggs with a saturated solution of soda, all blew readily on the following morning. As Mr. Bowles points out, the merit of using soda is in its quick results, thus enabling one to blow the egg before the shell has softened.—ED:]

USE OF COLLODION TO PREVENT ARSENICAL POISONING

Editor THE CONDOR:

All ornithologists are aware that there is more or less danger in the handling of arsenic in preparing specimens. If a small particle finds lodgment in a cut, a sore is the result. Painting the cut and around the finger nails with collodion before using arsenic prevents all this. It forms a smooth coating, and used in that way is harmless, clean and leaves no stain.

Fort Collins, Colo. W. L. BURNETT.

GENERAL NEWS NOTES.

C. W. RANDALL, JR., of Oakland, is spending the summer months at Cisco, Cal.

WALTER B. SAMPSON of Stockton, Cal., reports a set of Fulvous Tree Duck 1-24, taken in Merced Co., in June.

LYMAN BELDING spent several days in June at Summit, one of his favorite old-time observation grounds in the Sierras.

WALTER K. FISHER has been engaged in collecting for the Biological Survey near Baird, Shasta Co., Cal., for several weeks past.

COOPER CLUB members were represented at the commencement exercises at Stanford University in June as follows: The degree of A. M. was conferred upon Joseph Grinnell and J. F. Illingworth and that of A. B. upon Walter K. Fisher, Edmund Heller and Robert E. Snodgrass.

LOREN E. TAYLOR of Fyffe, El Dorado Co., Cal. has received an appointment as forest ranger on the Lake Tahoe Forest Reservation. Mr. Taylor's intimate knowledge of forestry and natural history will render his ranger work the more effective, while the opportunity afforded him of studying the fauna of the higher Sierras will doubtless be improved.

PROF. F. E. L. BEAL of the Biological Survey has been in California since early in June, visiting the principal orchard districts for the purpose of collecting stomachs of various birds, which will be analyzed and which will furnish the basis for further reports on the food habits of our birds. W. Otto Emerson of Haywards accompanied Prof. Beal through the region about San Francisco Bay.

PROF. J. O. SNYDER of Stanford University, one of the Cooper Club's popular members, was married on June 2nd to Miss Francis Hamilton, the couple departing at once on an eastern tour to include the Buffalo Exposition and Prof. Snyder's home in Indiana. Prof. Snyder has been connected with the University faculty for eight years and has been closely associated with Dr. Jordan in his work of classifying fishes. Cooper Club members unite in extending cordial well wishes to Mr. Snyder and his bride.

ON June 20th the Beck Expedition returned from a seven-months' cruise in the Galapagos Archipelago with a considerable cargo of scientific specimens. R. H. Beck and Ernest Adams were the naturalists in charge and about 1,000 birds' skins and a representative collection of exotic birds' eggs were taken, the latter embracing many species not heretofore discovered. Stops were made at Clarion and Guadalupe Islands and an extensive collection of photographs was secured. A number of giant tortoises were taken and are at present being kept at Mr. Beck's home at Berryessa. The expedition reports many interesting sights, including the eruption of several volcanoes.

THROUGH press dispatches the ornithological world became aware of the extremely sad and violent death which came to Francis J. Birtwell at Albuquerque, N. M., on June 29th. A dispatch conveys the particulars of Mr. Birtwell's demise as follows: "The couple were married in the Highlands only five weeks ago, and from here they journeyed to the Pecos country on their wedding tour. Last Friday morning Mr. Birtwell ascended a lofty pine tree to procure a bird's nest and while at a distance of seventy-five feet from the ground a heavy wind began swaying the tree. He called to his wife for aid and soon after ropes were thrown to him. He placed a loop beneath his armpits and the men at the other end of the rope began lowering the human weight. When Birtwell was within thirty feet of the ground the knotted rope lodged in the forks of the tree and in some unaccountable manner the rope slipped from under one arm and the hemp fastened about the throat of the unfortunate man. Mr. Birtwell struggled for several minutes to free himself from his precarious position and the men on the ground put forth every effort to release him, but all in vain. Finally, the struggling ceased and then it was first discovered that the man was dead. An hour after the body was lowered to the ground and an inquest was held."

Mr. Birtwell was well and favorably known to ornithologists as a writer on the birds of New Mexico and had in view at the time of his death an elaborate work to be entitled "The Ornithology of New Mexico." His writings in *The Osprey* during Mr. Coues regime, on Aptosochromatism received considerable attention at the hands of ornithologists, many dissenting from the theory in favor of molt, while Dr. Coues expressed to a greater or less degree his belief in aptosochromatism. Mr. Birtwell was a brilliant and promising ornithologist and general regret is felt that such a career should have been so abruptly closed.

THE CONDOR.

Bulletin of the

Cooper Ornithological Club

OF CALIFORNIA.

Published bi-monthly at Santa Clara, Cal., in the interests and as Official Organ of the Club.

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This issue of The Condor was mailed July 15.

EDITORIAL NOTES.

The Tenth Supplement to the A. O. U. Check-List appears in the July *Auk* and ornithologists may again breathe freely, including also the describers of new subspecies, whose feathered idols have been relegated to that bourne whence they seldom return. But seriously speaking, the supplement contains numerous changes in nomenclature and a goodly array of new species and subspecies finds place upon the list. The list of non-accepted species and subspecies is surprisingly large, but one must feel it impossible to comprehend upon which certain characters one subspecies is accepted and another rejected. We note surprising action in the case of *Pipilo fuscus carolæ* McGregor, described in The Condor (I, 1899, p. 11). Mr. McGregor subsequently pointed out that the type was a bird in freshly-acquired fall plumage, and that the alleged race should be relegated to synonymy (*Pac. Coast Avifauna*, 1901, p. 15), but instead has occurred the unfortunate action of giving the subspecies a place on the check-list. It is not, therefore, surprising that the lay ornithologist should marvel at the mysteries of our check-list.

An editorial in *The Osprey* for May comments upon the inaptness of the use of bird names as titles of magazines devoted to ornithology. This is a conclusion which every thinking person must have evolved who has endeavored to solve the relationship of *Plautus impennis*, of *Botaurus lentiginosus*—habitue of the marsh— or of our western *Gymnogyps*—proud and majestic though he may be—to the various magazines bearing these birds' common and more euphonious cognomens. The association of any of these names with the magazines bearing them suggests nothing, and this being an age of progression, we shall expect to see our contemporary adopt its own sensible advice and head the reform movement. The editorial in question suggests such titles as *The Wilsonia*, *The Audubonia*, etc., as being properly applicable to the American bird magazine.

We had expected to present several half-tones of interesting Galapagos bird subjects in this issue, but the lateness of arrival of the expedition and consequent delay in developing the numerous negatives secured, precludes the appearance of the anticipated cuts until our September issue. Messrs. Beck and Adams will also contribute articles to The Condor touching on the Galapagos fauna and their visit to that interesting spot,—Guadalupe Island.

We bow a gracious acknowledgment to Lieut. Jno. W. Daniel Jr., who recently attested his faith in The Condor by enclosing a $5 bill, covering the current volume and four years' advance subscription.

* * *

SAVE THE BIRDS' STOMACHS.

We would earnestly request members of the Cooper Ornithological Club who collect birds' skins to have the bird render a double value to science by preserving the stomachs for examination. As is generally known the Department of Agriculture is engaged in determining the foods of various birds, upon which results are based bulletins of great economic value. Prof. F. E. L. Beal is at this time engaged in collecting stomachs in California and at the request of this magazine submits the following suggestions for those who may care to undertake the work:

"The Biological Survey is desirous of procuring the stomachs of birds for the purpose of investigating their food habits. In furtherance of this object it solicits the cooperation of the ornithologists of California and requests that they preserve the stomachs (gizzards and crops) of such birds as they may collect. The Survey will furnish on application blank schedules for recording data, tags for numbering the stomachs and franked envelopes for mailing. When collected, the stomachs should be placed in alcohol or formalin for at least a week. Before forwarding to the Department they should be taken out and dried for half an hour or so; then placed in a baking powder can or cigar box, wrapped with a franked envelope on the outside and mailed. In order to reimburse the collector for the outlay for alcohol etc., the sum of five cents will be paid for each stomach sent in."

QUERY COLUMN.

ANSWERS.

6. Replying to Mr. Grinnell's query, "Does the Rufous Hummingbird breed in California"?, so far as my observations go, it does. On April 14, 1896 I photographed a nest of what later proved to be *Selasphorus rufus*, as we shall see. This nest was placed in a climbing Cherokee rose, running over the rear gable of my home at Haywards. It might be asked how I knew this was a Rufous Hummingbird, since the males do not attend the females during nidification. Contrary to the observations of some late writers I have twice seen the male try to drive the female back to her nest, I had just stepped out on the porch at sun-rise when I saw the female leave the nest, darting through another clinging rose at the end of the porch in an effort to pass behind it. The male made his appearance at once, darting down at the female bird and after a few sharp twitters of anger which seemed to settle the matter of her leaving the nest so early, they both passed out of sight and not once did I see the male again during the incubation period.

The only other instance I have recorded of the male being seen was in the middle of June, 1879, while camping in the lower end of Calaveras valley Santa Clara Co., Cal. After setting up our table under a spreading sycamore and eating breakfast, a hummingbird flew off her nest some six feet above the top of our table. In this case the male was noted some half hour later trying to drive the female to her nest, which she later forsook altogether on account of the noise we made.

W. OTTO EMERSON.

Haywards, Cal.

* * *

The minutes of the Southern Division are omitted from this issue, not having been received up to the time of going to press.

A SUGGESTION FOR FORMING CLUB CHAPTERS.

At the rate the club is increasing in membership we shall soon be confronted with an entirely new condition and one that will demand different methods of procedure. In the past our membership has been located near the centers of most interest in ornithology and it was a comparatively easy matter for the members to meet at any stated place.

The membership now, however, is spreading out constantly through the smaller towns until in Southern California, they are as far away from the present meeting places as 140 miles. At that distance or even one-fourth of it, it is a serious and expensive undertaking to attend a meeting. The same is true of the Northern Division.

The result is that many of our enthusiastic members are deprived of the pleasure of attending the meetings of the club. This, in time, will force us to adopt different methods, and it occurs to me that at the present time it is proper to discuss the best methods of meeting it. I would therefore suggest for consideration the adoption of a plan whereby circles, extensions, local branches or whatever it is best to call them, of the club at large, under certain conditions, might be formed. For instance, we have an enthusiastic member in some town remote from present centers. It would be an easy matter for that member to find out those in the vicinity likely to be interested in ornithology (and it is surprising how much latent interest there is which only needs arousing to bring it into activity). Then issue a call for a meeting, state the purposes of the club and get as many to join as is possible. The local papers are always glad to help a movement of this sort, and many men not particularly interested in ornithology often lend their help by joining such a circle. One or two persons in a locality could easily start such a movement and with the addition of three or four more could form a strong nucleus which would rapidly grow into an active circle.

Local officers could be elected and reports of meetings published in THE CONDOR as at present. Under this system I believe the club at large would increase wonderfully in membership and the present members, scattered as they are, would derive much more benefit from their association with the club.

FRANK S. DAGGETT.

Pasadena, Cal.

* * *

Mr. and Mrs. C. Barlow spent two weeks in June in camping with L. E. Taylor studying ornithology along the Placerville-Tahoe Road.

PUBLICATIONS RECEIVED.

CHAPMAN, FRANK M., A New Race of the Great Blue Heron with Remarks on the Status and Range of *Ardea wardi.* (Bull. Am. Mus. Nat. Hist. XIV. Art. VIII, Apl, 15, 1901).

HORNADAY, WM. T., Notes of the Mountain Sheep of North America, With a Description of a New Species. (Reprinted from Annual Report N. Y. Zoological Society, June 1, 1901).

MORRIS, ROBERT O., The Birds of Springfield and Vicinity. 46 pp., Springfield, Mass. 1901 (See notice).

SHUFELDT, DR. R. W. Notes on the Osteology of *Scopus umbretta* and *Balæniceps rex* (Ext. Journ. of Anat and Phys. XXXV 405-412. I pl).

SHUFELDT, DR. R. W. Osteology of the Penguins. (Ext. Journ. of Anat. and Phys. XXXV. 390-404. I pl.)

SHUFELDT, DR. R. W., Osteology of the Herodiones. (Reprint Annals Carnegie Museum, pp. 158-249).

STONE, WITMER. On Moult and Alleged Color-change in Birds. (Ibis, April, 1901).

STRONG, R. M., A Quantitative Study of Variation in the Smaller North-American Shrikes. (Reprinted from Am. Nat. XXXV. No. 412).

American Ornithology, 1, Nos. 3, 4, 5, 6 and 7, Mar., Apl., May, June and July.

Annual Report of the Directors of Field Columbian Museum, Vol. I, No. 6, Chicago, Oct. 1900.

Annual Report Game and Forestry Warden of Oregon, 1889-1900.

Annual Report U. S. National Museum, Part 2, 1897. Issued 1901.

Annual Report U. S. National Museum, 1899. Issued 1901.

Auk, The, XVIII, Nos. 2 and 3, April and July, 1901.

Bird-Lore, III, Nos. 2 and 3, Mch-Apl, May-June, 1901.

Birds & Nature, IX, Nos. 3, 4, 5, Mch, Apl, May, X, No. I, June, 1991.

Circular, No. 33 Biological Survey; Protection of Birds and Game; Directory of State Officials and Organizations for 1901. April 18, 1901.

Journal of Maine Ornithological Society, III, Nos 1 and 2, Jan, Apl, 1901.

Land of Sunshine, XIV. No. 3, March, 1901.

Maine Sportsman, VIII, Nos. 91, 92, 93, 94. Mch, Apl, May; 11, No. 1, 2, June and July, 1901.

Maine Sportsmen, VIII, Nos. 91, 92, 93, 94. Mar., Apl, May, June.

Nature Study, I, Nos. 10, 11, 12, Mch, Apl, May; No. 1, 2, June and July, 1901.

Notes on Rhode Island Ornithology, II, No. 2, April, 1901.

Ohio Naturalist, I. Nos. 5, 6, 7 and 8; March, April, May, June.

Oologist, The. XVIII, Nos. 4, 5, 6; April, May and June, 1901.

Ornithologisches Jahrbuch, XII, Nos. 1, 2-3; Jan-Feb, Mch-June.

Osprey, The, V, Nos. 3, 4, 5. Jan-Feb, Mch-Apl, May, 1901.

Our Animal Friends, XXVIII, Nos. 7, 8, 9, 10, 11; March, April, May, June, July, 1901.

Our Dumb Animals, XXXIII, Nos. 10, 11, 12, Mch, Apl, May; XXXIV, No. 1, June, 1901.

Plant World, IV, Nos. 2, 3, 4, 5; Feb, Mch, Apl, May, 1901.

Popular Science, XXXV, Nos. 4, 5, 6, 7; April, May, June, July.

Proceedings U. S. Nat. Museum, Vols. 19, 20, 21 and 22.

Proceedings (Abstract) *of the Deleware Valley Orn. Club* for, 1900. Published 1901.

Recreation, XIV, Nos. 3, 4, 5, 6; Mch, Apl, May, June; XV, No. 1, July, 1001.

Report of the Secretary of Smithsonian Institution 1899-1900.

Wilson Bulletin, Nos. 34 and 35; March 30, 1901, May 30, 1901.

* * *

Official Minutes of Northern Division.

The July meeting was held at the residence of C. Barlow in Santa Clara, Prof. F. E. L. Beal being present as a visitor. W. Otto Emerson acted as president for the evening. The following persons were elected to active membership: Miss Ora Boring, Palo Alto, Cal., Willis H. Jackson, Pescadero, Cal., and H. R. Noack. Berkeley, Cal. The names of H. P. Goodman and George Grimm of Napa were recommended for membership. The resignation of James M. Hyde was accepted.

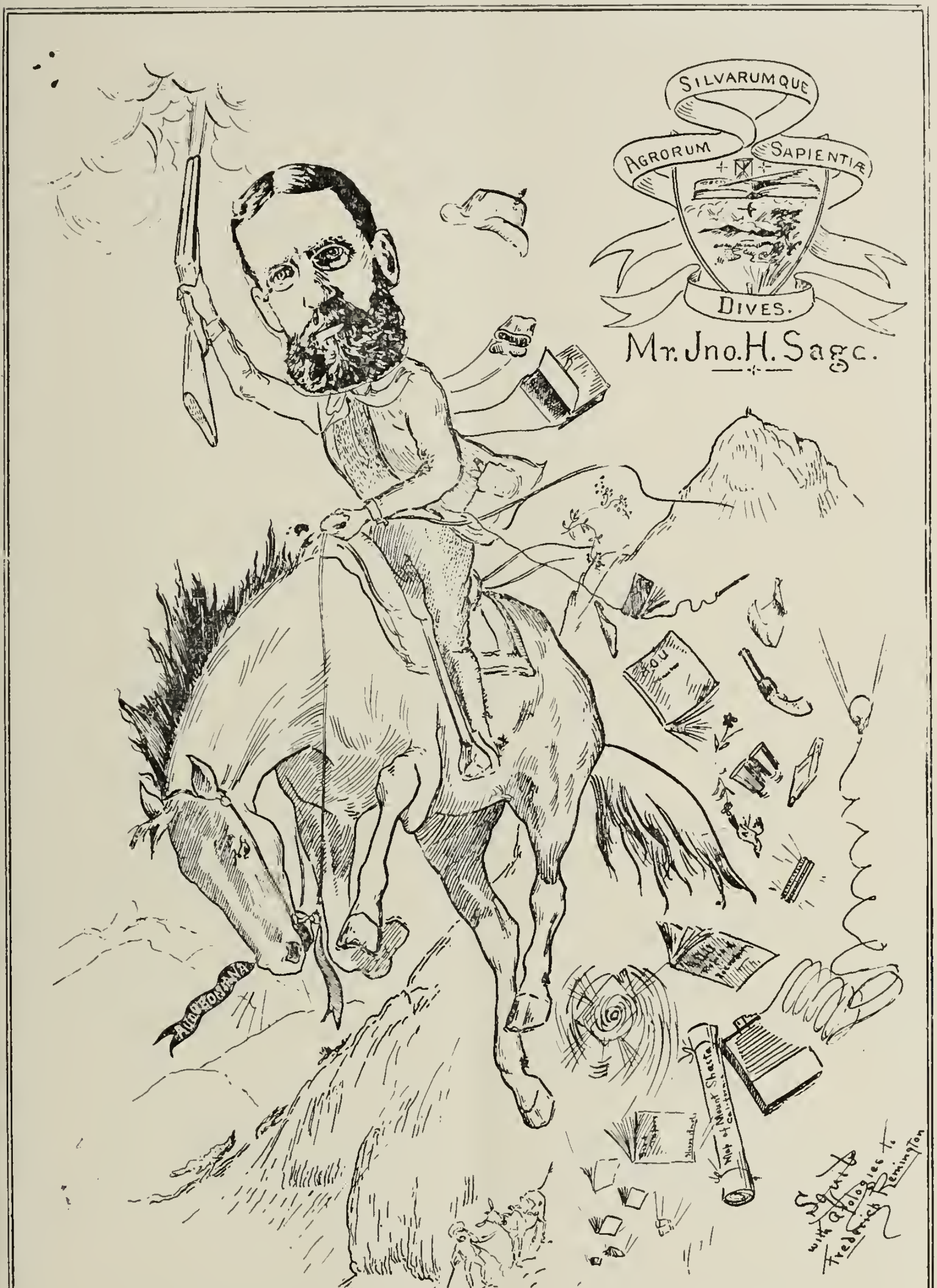
The prepared draft for a new constitution was given its first reading and ordered transmitted to the Southern Division for similar action. Rollo H. Beck spoke on "The Occurrence of some North American Birds as observed on a trip to the Galapagos Islands." A paper by Walter K. Fisher, entitled "Breeding of *Hesperocichla nævia* in California" was read, after which Prof. Beal addressed the meeting with reference to the work being done by the Biological Survey in the matter of analyzing the contents of bird's stomachs. The Division meets on September 7 at the residence of R. S. Wheeler in Alameda.

C. BARLOW, Secretary.

* * *

The Birds of Springfield and Vicinity is the title of a recently published work by Robert O. Morris of Springfield, Mass The work consists of an introduction and an annotated list of 251 species observed within the vicinity of Springfield, together with a bibliography of the literature pertaining to the birds of this region. The work is bound in cloth and, barring typographical errors in its nomenclature, is neatly printed. Published by Henry R. Johnson, Springfield, Mass.

"Snap Shots at Prominent Ornithologists." No. IV.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AGRORUM
SAPIENTIÆ
DIVES.
Mr. Jno. H. Sage.
AUDUBONIANA
A.O.U
Map of Mount Shasta California
Squirt with apologies to Frederick Remington

'Auduboniana' doesn't like the scent of gunpowder—
showing a difficulty we have experienced in reconciling the 'New' to the 'Old'.

The American Ornithologists' Union

CHECK-LIST OF NORTH AMERICAN BIRDS,

Second Edition, 1895, Thoroughly Revised.

The preface to this work defines its scope and object and includes selections from the A. O. U. Code of Nomenclature, of special importance in the present connection. The table of contents consists of a systematic list of orders, sub-orders and families of North American birds. The check-list proper gives the scientific and common name, number in previous list, and geographical distribution of the 1,068 species and sub-species, constituting the North American Avifauna. This is followed by a list of birds of doubtful status, and a list of the fossil birds of North America.

This new edition has been carefully revised; the recent changes in nomenclature and species and sub-species described since the publication of the first edition in 1886 are included, while the portion relating to geographical distribution has been much amplified.

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SEPTEMBER-OCTOBER 1901.

THE CONDOR.

Cooper Ornithological Club. Santa Clara, California.

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THE CONDOR.

Bulletin of the Cooper Ornithological Club.

A Bi-Monthly Exponent of Californian Ornithology.

Vol. 3. No. 5. **Santa Clara, Cal., September-October, 1901.** $1.00 a Year

Some Characteristics of the Mountain Chickadee.

BY C. BARLOW, SANTA CLARA, CAL.

IT was a cheery *chick-a-dee-dee* that gave me my first introduction to this vivacious bird in the Sierra, and when I later discovered a nest hidden securely in an old pine stub deep in the forest, I could not resist the impression that here indeed was contentment personified. Here, far from the habitations of man, and beside an abandoned trail which had long since ceased to re-echo human footsteps had settled a pair of Mountain Chickadees (*Parus gambeli*). No matter how fared their neighbors and with no time to gossip with the shy warblers of their domain, these little birds seemed unconscious of all else save their piney mansion.

True they were not fastidious and had taken up house-keeping in old quarters, and their particular stub with its deep-creased bark and rotten foundation did not differ from a thousand other stubs which dotted the forest. But this stump, capped by the previous winter's snow, was destined to become the arena of intense activity with the advent of Spring.

It has seemed to me that many of the characters of every-day life have their counterparts in the bird world. Some of the feathered tribe show great deliberation in their work, as though spring would never wane; others, such as the Wood Pewee and flycatchers find much time to watch the doings of their neighbors, but the chickadee is the ideal of industry. I have never seen a Mountain Chickadee that he was not deeply engrossed in his work, his *chick-a-dee-dee chick-a-dee-dee* sounding shrilly the warning that no one must delay him.

This black-and-white Parus occurs from the lower ridges of the Sierra up to the summit, and deserted indeed are the woods that do not re-echo his call. Like most of the resident species using protected nests, the Mountain Chickadee begins nest-building early, being but little influenced by the elements. Rotten stubs have the preference as nesting sites, particularly where the core of the tree has rotted away, leaving a cavity. I doubt if the birds attempt much excavating, aside from carrying out loose material. Of all the nests I have examined a majority were in pine or spruce stubs with the entrance at the top.

My first nest was found on June 11, 1898, as Mr. L. E. Taylor and I were walking along the stage road. I shot a bird which was moving about in the timber and found it to be a Mountain Chickadee. Fearful of results I looked about for a possible nest. An old spruce stub about three feet high and nine inches through stood near the road and a two-inch hole in its top led down into the darkness. On scraping the stub a series of hisses came forth denoting young.

We tore open one side of the stub and beheld a nest of nine young chickadees ready to fly. They scrambled up the side of the rough wall and three escaped into the brush; while the other six were quieted and a photograph of the stub was made. In plumage the young birds were counterparts of the adults. The male bird was calling near by so we patched up the stub and continued on our way. On the following day I found the young had all left the nest and the loss of the mother bird had not proven so tragic as the reader may have been led to imagine.

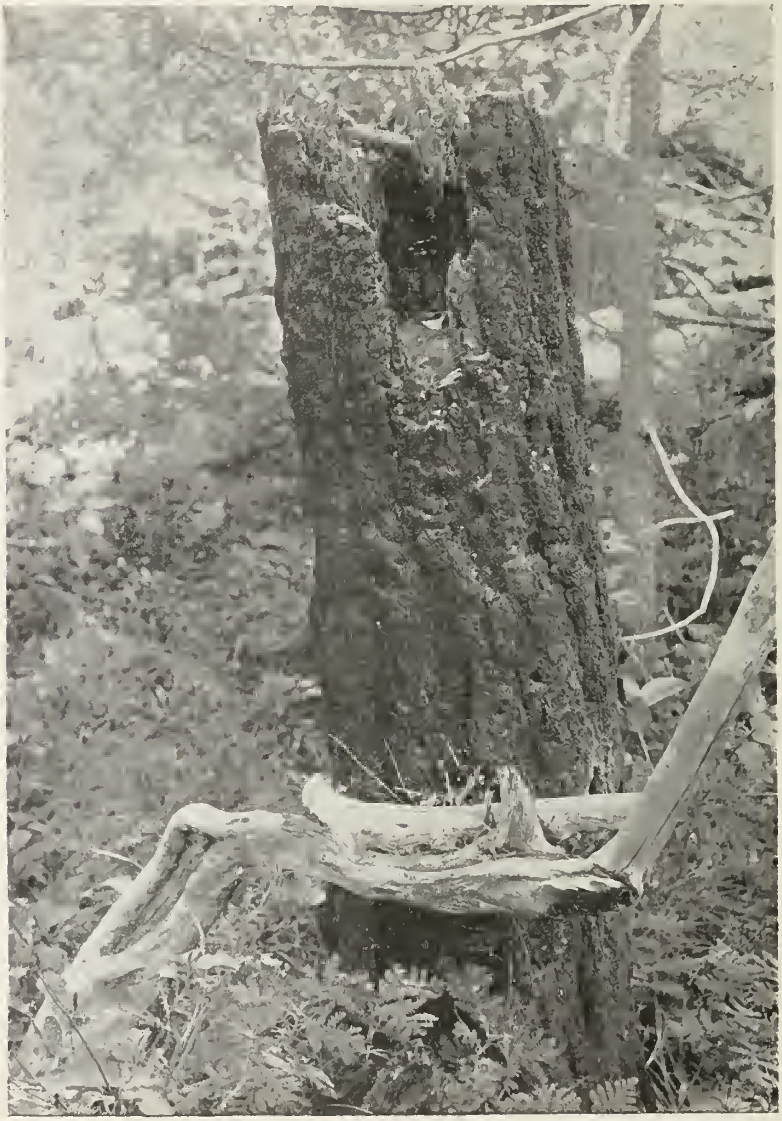

Photo by C. Barlow.

NESTING STUB OF THE MOUNTAIN CHICKADEE.
(With section removed.)

An examination of the nest showed

that the core of the stub had rotted out to a depth of twelve inches. The entrance was perhaps two inches in diameter, but the nesting cavity had evidently been enlarged. At the bottom about two inches of soft, stripped spruce bark had been placed for a foundation and on this rested two inches of fine, soft, matted fur, much of which had been gathered from some luckless squirrel. This made an extremely warm and downy nest for the young, and the labor of bringing such a mass of material into the stub is worth contemplating. The illustration shows very well the nest after one side had been removed, although but one of the six young chickadees secured a "full length" portrait.

On June 8, 1899, Mr. H. W. Carriger found a nest of this species in a pine stub four feet up, holding seven newly-hatched young. The nest was of shredded cedar bark and squirrel fur. This nest was located in the deep pine-woods.

When we camped on a beautiful mountain meadow at 7,500 feet in June, 1900, the Mountain Chickadee did not desert us. The meadow was damp, and frosty nights were the rule, yet almost the first bird that greeted us on our first morning in the meadow was little Parus in a tamarack near the cabin. Presently he flew down to the base-boards of the cabin and peered inquiringly into a rough hole which some woodpecker had probably drilled in previous years. Then he was off and a peep into the hole disclosed the female bird setting complacently on an exquisite nest and eight eggs.

The domestic affairs of this pair of birds would no doubt have proven productive of many interesting observations and photographs had we been permitted to tarry, but such an arrangement was out of the question. So I concluded that the set was my lawful prey because I was ordinarily some 200 miles from the Sierra, while to the chickadees the matter of producing a second set was one of small moment and the additional practice of nest-building would be beneficial, tho' I doubt if they ever again build quite so unique a nest as was this one.

The nest had been built on a joist under the cabin in a space ten inches long and seven and a half inches wide. This had been filled with cow-hair, squirrel fur and hemp picked up from about the dairy, and when the nest was removed it presented a solid mat 2½ inches thick and of the dimensions given. Near the center of the mat a round cavity 2½ inches across and 1½ inches deep held the eight eggs. Of these one was spotted, one had a trace of markings while the other six were pure white. The set was but slightly incubated when collected on June 10, 1900. During our stay on the meadow Mr. Atkinson found a nest just finished in a tamarack stub, but no eggs had been deposited. During May of the same year Mr. Taylor found a nest located in a rotten cavity of a large tree trunk by the roadside near Fyffe.

On June 6, of the present year while at Fyffe Mr. Taylor and I noticed a Mountain Chickadee enter a deserted woodpecker's hole in a large burnt stump eight feet from the ground. Upon opening the nest eight fully-grown young chickadees flew out one by one while both parents anxiously watched the proceeding from a nearby bush. On June 10 at Slippery Ford we found another nest in a black-oak snag on a hillside. The stump was about six feet high and a hole in the top served as an entrance to the nest. As in all previous cases the parent bird in the nest gave vent to a series of hisses which might easily have been taken for those of a snake had we not known the contents of the cavity. This nest held small young but we could not determine the size of the brood.

The above nesting records cover perhaps the range of nesting-sites selected by this chickadee and the sets of eggs vary apparently from seven to nine, occasional specimens being spotted lightly. I must also mention that the Mountain Chickadee is possessed of a soft and very musical song, although it does not seem to be uttered nearly so frequently as the common-place *chick-a dee-dee*. This song consists of four notes, two being given in the same high key while the last two drop perhaps half way down the scale. To my notion it is very similar to the song of the Golden-crowned Sparrow, but judging from the recent discussion of the latter's song in this journal, I fear that many Californians will have to observe *Zonotrichia coronata* closely before they can appreciate my comparison of songs.

Alma's Thrush in Colorado.

MR. HARRY C. OBERHOLSER in the *Auk* Oct. 1898 describes this new thrush and says: Montana, Colorado and Texas have both *swainsoni* and *almæ* during migration. He gives lists of specimens from Colorado as follows; Clear Creek, Twin Lakes, Denver nd Colorado Springs. I collected a male May 20th, 1900. It was in company with several others in a clump of cottonwoods along a small branch of the Poudre River inside the city limits of Fort Collins. The day was cloudy with a fine drizzling rain that had set in the night before making everything dripping wet but that did not dampen their spirits as they were singing as only a thrush can sing. They were very shy keeping among the leaves in the topmost branches, and it was with difficulty I secured one. Dr. A. K. Fisher kindly identified it for me.

Prof. Cooke's list and first appendix to same were published before Mr. Oberholser described it, but in his second appendix published May 1900, by some oversight he omitted it.

WILLIAM L. BURNETT.

Fort Collins, Colo.

Eggs From American Barn Owls in Captivity.

AT THE Northern Division meeting in Alameda May 7, 1898 a paper entitled "The American Barn Owl in Captivity" by myself was read, describing a brood of downy owlets recently taken, and their habits in confinement. As a sequel I will furnish a few other notes concerning the later life of the three survivors. After their plumage was well formed I decided that the box in which they were raised was too small for them, so fenced off a space under a pigeon house, whose floor was six feet from the ground. A shed and fence on two sides of the cage, which was about ten feet square, shut out considerable light. The floor was dry and sandy and two nail kegs were nailed up close to the roof and slanted downward toward the bottom.

Then I had considerable difficulty in transferring the owlets into a sack. They fought viciously at my gloved hand with beaks and talons. If they had been handled daily from infancy I doubt if their wildness or ferocity could have been overcome, except to that certain degree which is influenced by hunger and habit of forced observation on the attendant's movements. When first liberated in this enclosure they flopped about wildly, hissing in evident terror, and finally flopped into one of the nail kegs. After this they were not intruded upon for some days but always made a physical commotion, beating about the cage, at my entrance.

During the day they remained quiet but at dusk began their hisses. This hiss of voluntary origin was unlike the hiss caused by their defensive attitude, both in sound and intervals of frequency. A pail of water was set into the enclosure but I could not determine that they had much use for it either as a beverage or an ablution.

No live rodents were ever served with their menu, because there were very few about the yard at this time, and if any entered the cage to feed upon the leavings of what the owls were fed, they were probably pounced upon and consumed instanter. Illustrating the pouncing act, when the owls were very hungry and I threw a morsel of food of familiar variety into the cage, an owl would drop out of the keg and onto the "prey" in less time than the force of gravity allows. Generally the other two birds waited a longer or shorter interval after the first one alighted, just as the first one at times was more or less eager. Often I would have to move away a few feet before the first owl would come out of the keg where they remained all day. They were fed upon raw meat, dead poultry and even dead cats and generally had an overabundance of food before them. Whether stale food was bad for them or not is a doubt in my mind.

Two of the owls seemed to be of one sex because one bird kept in a cage by itself and the other two were always together. On Feb. 12, 1899 I heard the two birds chuckling and "talking" to each other, and remembering the pair that nested in 1888 on my third-story balcony had acted in this manner over their eggs, I entered the cage and found one egg in the keg occupied by the two birds and both birds in the keg.

Knowing it requires about two weeks to produce a set, they were not disturbed, but on the morning of the 19th I found a dead owl but had no chance to determine if it was the unmated one. By the 26th they all died and the first two dead ones were partly eaten by their survivor, although sufficient food was at hand. On this day a second egg was found in the keg. Both eggs were fresh and show no variation when compared with a series from wild relations.

As to the owls' sudden demise I can only conjecture that the sameness of food constantly may have hastened the end, and that the lack of exercise had hardly any influence upon birds under a year old. The last bird was a female and poor in plumage. The shaft feathers were in good order and those of the back were fairly abundant, while the frill about the face was rather scant and the feathers thence down along the under parts were not numerous enough to make a good specimen.

The bones and carcasses and the commentably small number of regurgitated pellets were raked out and hauled away and the cage converted into a chicken coop. The hens now lay eggs in the nail kegs but the monkey-faces of the aboriginal owners no longer peer over the rims in response to my footsteps. I always regretted that these owls were so unmanageable or I should have turned them loose to prey upon the rats infesting the chicken yard. A Barn Owl does more good in destroying rodents than five good cats.

There are one or more pairs of Barn Owls about the town of Alameda and where they nest has always been a mystery to me. On calm nights they are often heard overhead "clicking" and chuckling, and I have detected four notes of this species the other two being hisses. The owls I had in captivity never sounded the "clicking" notes, which may be likened to the sound of a slow-moving fishing reel. My regret is that I did not take more time to study the habits, especially the food influence upon captives. Mr. H. R. Taylor has had numerous species of raptores in his "raptory," including a Barn Owl, but it had only a Horned Owl for a mate and did not produce any eggs; neither did the Western Redtails, the Golden Eagle, the Duck Hawks, nor the White-tailed Kites.

Sets of Barn Owl's eggs are found earlier in certain years than in others. In 1899 my birds began Feb. 12, and from several pairs of wild birds six fresh eggs were taken from one pair on April 27, and in the nest from which my captive birds were taken were three eggs on April 19 as the two earliest records. In 1900 the first eggs were: March 24, six eggs, incubation fresh to slight. In the nest where my birds were taken (on this same date) were one fresh egg, two fresh or addled, two with small embryos, three with very large embryos, one egg pipped, and one owlet; total, ten eggs.

I thought Feb. 12 an extra early date but considered it influenced by dry shelter and plenty of food, but in the case of this large set the first egg must have been laid about March 1. On the same date another nest held four fresh eggs; another held one fresh egg. On March 30 one nest held two eggs and several owlets. Individual birds certainly lay earlier annually than others, as does the parent? bird of these captive owls and the hereditary transmission was perhaps over-transmitted to the offspring. Donald A. Cohen.

Alameda, Cal.

Nesting of Spatula clypeata.

WHILE collecting some specimens of the Salt Marsh Song Sparrow (*Melospiza melodia pusillula*) on the salt marsh April 25, 1901, I noticed on starting out from the edge of the marsh a pair of ducks which were flying toward the waters of the bay.

After working over the marsh for several hours I started back and when half way across I again saw a pair of ducks headed inland, but thought nothing of it until a single duck started up ten feet from me and 300 yards from the mainland.

On going to the spot there lay a nest in open sight on the bare ground among the salt-weed. It was not over four inches off the ground and contained fourteen eggs. The nest was composed of dry stems of the salt-weed, lined with down and a few feathers from the parent bird, and measured fourteen inches across the top with a depth of five inches.

The eggs were of a dull grayish-green or olive color, about two-thirds incubated and lay well embedded in the down of the nest. If the female had not flushed I should not have found the nest.

On March 28, 1886 I took a set of this same species, placed on the sand under a low bush, 150 yards back from the bay shore. The nest was constructed in a very similar manner to the one above described. In this case I got my head within three feet of the close-setting female before she flew, the male joining her before reaching the bay. The Shoveller is becoming more common on the salt marshes from year to·year.

W. Otto Emerson.

Haywards, Cal.

A Visit to the Herons.

ON THE morning of April 4, 1901 Mr. R. Smith and the writer started on bicycles to visit a heronry about six miles from town. We passed the Napa State Insane Asylum one and one-half miles out at nine o'clock and reached the heronry half an hour later. It was found to be thickly populated with Great Blue Herons (*Ardea herodias*), known to their human neighbors familiarly as cranes.

This heronry is situated on the summit of an eminence known as Greenwood's hill and does not at all resemble the dismal-like heronries I have read of so often. The trees are chiefly live-oaks and contain, in some cases, as many as eleven nests. We carried a ¾-inch rope about 80 feet long, a satchel for the eggs and a tape-line for measuring heights. After considerable difficult climbing we secured a number of sets of eggs from the rather bulky nests of sticks.

In the live oaks the nests can be best seen from below, and from a distance a tree containing several nests does not appear to be tenanted. The birds usually perched near the nests and were easily seen. On the trip Barn Owls, Sparrow Hawks, Californian Woodpeckers and Brewer's Blackbirds were especially numerous while many other species were represented.

Leon Hottel.

Napa, Cal.

Summer Observations in the Southern Sierras.

BY F. S. DAGGETT, PASADENA, CAL.

ON June 26 I started on a long trip which included a wagon drive from Pasadena, Cal., via Saugus, Antelope Valley, Ft. Tejon, Bakersfield, Visalia and thence up the North Fork of the Kaweah where the wagon was left. The journey was then continued with pack animals to the Giant Forest, then along the western divide to King's River canyon, Bubb's Creek and the system of alpine lakes near Mt. Brewer and Kearsarge Pass.

Intense heat was encountered in the valleys, the thermometer ranging as high as 115° at Rose's station. At Bullfrog Lake at an elevation of 11,000 feet, the other extreme was met with, when ice formed on the meadows at night. This wide range of conditions included a vast faunal region which at best could be examined only in a superficial way, but over one hundred varieties of birds were identified, besides many doubtful species seen but not recorded.

In the cultivated section about Pasadena the common birds include the mockers, house finches, Brewers black birds, Bullock's and Arizona hooded orioles, etc., but the change is sudden when the San Fernando valley is reached where the cactus wren, thrashers, Bells sparrows and birds of the dry wash region predominate.

At the Newhall cut a sprightly pair of dotted canyon wrens worked down a dry run in the hard pan not ten feet from where we toiled up the stiff grade, the male stopping the whole expedition by running down the scale in clear loud notes. To my mind the song of this bird is the most captivating of all the southern songsters.

The Antelope Valley presents another area entirely different, for it has reverted from its former grain growing condition to that of an arm of the Mohave desert. Thousands of Mexican horned larks (*Otocoris alpestris chrysolæma*) were seen in flocks of twenty to fifty. There is little protection for them from the sun and we found them standing in rows in the shade of fence posts and milk weed, with mouths wide open when the thermometer marked 108° on June 27. Full-fledged young were in the flocks on that date.

At the upper end of the valley several hundred ravens had congregated and all were feeding on grasshoppers which were constantly flying ahead of them whenever the birds moved. Many attempted the flycatcher habit of taking them on the wing, but such attempts, judging from their awkward antics must have often failed. Several dozen Swainson's hawks were also engaged in the same occupation, but these made no attempt to catch the grasshoppers on the wing.

Unlike the horned larks which were very tame, the ravens and hawks kept a long rifle shot away. When we returned through this section July 30, the grasshoppers were more than ever in evidence, but it being late in the afternoon, after feeding time, the ravens were having a rollicking time on the smooth surface of a large hill on one side of the valley. Unlike the crows under similar conditions they were quite silent.

Between the head of the Antelope and the San Joaquin valleys is a rough country, but it contains a stretch of valley covered with magnificent oaks, one said to be the largest in the state being nearly 33 feet in circumference. This spot is of particular interest to bird students for here is the site of old Fort Tejon, the objective point of many of the earlier government expeditions and from which much exploration was done. Here in the '50's John Xantus made extensive collections, and to this locality we first owe such birds as the spotted owl, Hammond's flycatcher, Cassin's Vireo and others.

A magnificent specimen of the California vulture was seen at the outlet of this canyon where it broadens into the head of the San Joaquin valley. He came down the canyon some 600 feet in the air, the white of his outstretched wings shining like silver. Making a couple of circles for our benefit he rounded the eastern spur and disappeared. The vaqueros on this ranch of forty miles square say that at times they see numbers of them about dead cattle. With food plentiful and shooting absolutely prohibited, as it is on this ranch, it is hoped that this may prove to be a vast preserve for the perpetuation of this our grandest species.

We encountered Mexican horned larks again in numbers about the head of the San Joaquin valley, but they disappeared as we entered the irrigation district about Bakersfield, where for twenty-five to forty miles the semi-desert country has been made to bloom. This transformation has, of course, changed the whole fauna as well. Noisy Arkansas king-birds are on every fence and cottonwood, song sparrows and valley partridges about every clump.

In driving at night to avoid the heat, we were often greeted with strange voices and notes. Killdeer would fly from roadside puddles, barn owls from the fences, and herons flash in the moonlight as we rumbled across bridges over the irrigation ditches. We are fairly familiar with the day habits of our common birds but how little we know of the interesting period between sunset and sunrise.

Leaving the valley beyond Visalia we strike right up the North Fork of the Kaweah river, crossing the Marble Fork of that stream and enter the Giant Forest in the Sequoia National Park. One could hardly imagine a greater change in flora and fauna than here exists.

Guns are not allowed in the park, but the military officers in charge extend every courtesy to bonafide students and scientists. We were given a letter by the commanding officer to all guards and patrols to extend to us every possible courtesy, and permission to carry our guns unsealed through the parks, but not to be used for game shooting. Our whole stay was marked by extreme courtesy and helpfulness on the part of officers and patrols.

Many of the sequoia are perforated for woodpecker's nests, the holes however not reaching through the bark, and in nearly every instance being located on the north or shady side of the tree. Along the ridges on the slopes of the western divide we met with half grown sooty grouse, the old birds flying into the trees, followed by the young. At about the same elevation, 8000 to 9000 feet, I saw broods in the canyons along the edges of meadows. They were very tame allowing me to stand under the tree when they were standing rigidly upon a limb fifteen feet above.

On Bubb's Creek an old hen and half a dozen one-third grown chicks hung about the meadow all one Sunday and we took much interest in her motherly solicitude. That evening a couple of young fellows out of supplies came down the canyon and we gave them of our store and they left. A few minutes later we heard the report of a gun and one of them returned and offered us the mother bird, in gratitude for our treatment, but none of us had the heart to accept it. What became of the brood of chicks I know not for we broke camp next morning at daylight. Incidents of this kind show that much damage is done by thoughtless persons.

At Lake Reflection and Bullfrog Lake Clarke's nutcrackers, in pairs, showed much distress, although we could find no nests or young about. The gray-crowned leucostictes were common in both localities and very tame, and had the habit noted at Mt. Whitney of gleaning numbed insects from the snow banks. At Horse Corral Meadow, on the way out July 21, I found the nest of a Thurber's junco. It was situated at the edge of the meadow, almost completely hidden in a clump of coarse grass. It was composed of coarse grasses, lined with finer grass, and short hairs from mule and burro, such as might fall along the trail from clipped manes. The nest contained three downy young. The trip covered some 650 miles of wagon travel and about 200 with pack animals on mountain trails.

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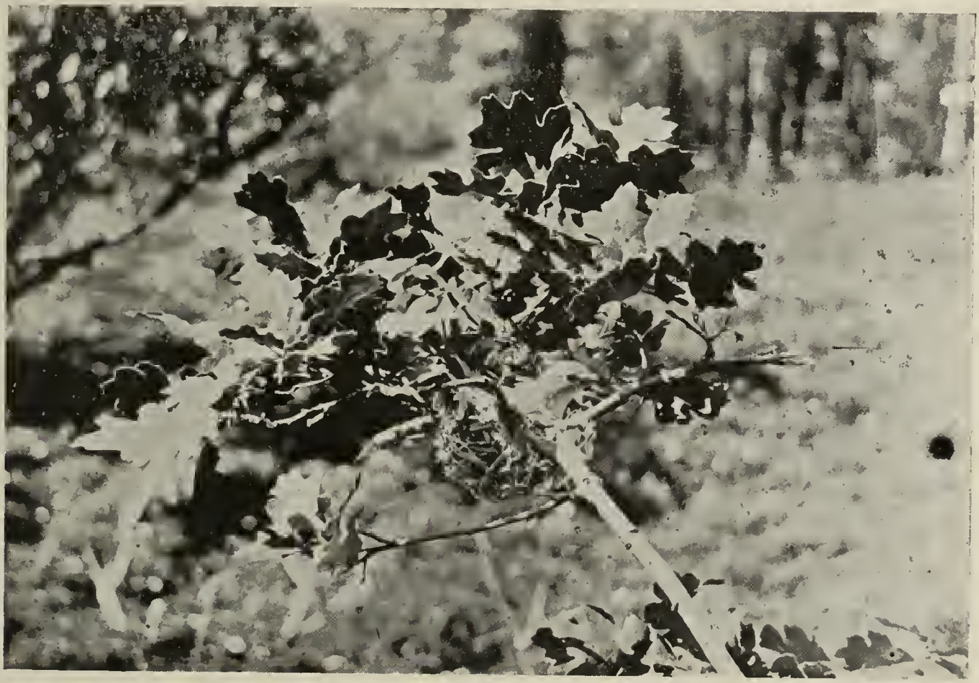

TYPICAL NEST OF CASSIN VIREO.
(From an enlargement of a photograph taken by R. H. Beck.)

Vireo Traits.

The above illustration typifies the nature of Cassin Vireo (*Vireo solitarius cassini*) during its nesting season—, a confiding bird with a generous streak of curiosity running through its disposition. In June 1896 Mr. R. H. Beck found the nest represented in the illustration built in a black oak tree on the edge of a clearing, the nest being suspended only about three feet from the ground. The bird seemed not greatly disturbed by the setting up of the camera and a successful photograph resulted.

Four eggs constitutes the usual set, although I have twice found five young in a nest and one set of five eggs advanced in incubation. The nests are compactly woven and lined with light colored grasses, while the eggs are larger than those of either *Vireo huttoni* or *Vireo gilvus*. Cassin Vireo seems to possess but little fear of man and will approach very closely to the observer if he remaims motionless; when the nest is disturbed the birds will alternately utter a harsh note of remonstrance and then launch into song. The location of the nest here shown was Fyffe, El Dorado Co., Cal. C. Barlow.

Birds Recorded at Paicines, San Benito Co., California.

BY J. & J. W. MAILLIARD.

THE APPENDED LIST is compiled from notes and records made by my brother and myself at Rancho Paicines during many visits of from two to ten days duration at various times of the year since 1888. In this work we have been greatly aided by the resident superintendent, Mr. Peter Kelly, who is naturally a shrewd observer, and who has taken a deep interest in the bird life of the locality.

Our observations have been confined to this ranch and the immediate neighborhood, probably not covering over thirty square miles. Most unfortunately a valise containing some valuable notes and records of ours was stolen from a transfer wagon and never recovered. We are not sure of having closed the gap made by this loss.

Paicines is situated on the northern slope of a comparatively dry belt, Hollister ten miles north being the approximate limit of copious rains. The annual rainfall at Paicines varies from four inches in dry seasons to fifteen or more in wet winters, twelve inches when properly distributed insuring good crops. The result of this light precipitation, together with the coolness of the climate as compared with the southern and interior valleys of the State is that many of the resident birds are intermediate between the dark northern and coast forms and the lighter ones of the true interior and south.

The ranch consists mostly of open rolling land on both sides of the San Benito River, with some alluvial bottoms, occasional oak groves, many scattering oaks, sage brush and chaparral tracts, and clumps of cottonwoods or willows here and there beside the stream. Like many California rivers the San Benito can only be dignified with such a name immediately after a heavy rainfall in the mountains, as for the greater part of the time it is but a small stream, often dry for long stretches in the summer. Its valley is bounded on the southwest by the Gabilan Range which is some 3000 feet high and is covered on its northeast slope with digger pines and chaparral. On the ranch are large tracts of open pasture land, hundreds of acres of level grain fields and an alfalfa patch of 100 acres under irrigation. but no orchard or vineyard.

From this brief description it will be seen that the character of the country is quite diversified and the variety of birds correspondingly large. Many different species of ducks follow the river in the fall and winter and often light upon the small ponds and lagoons in its neighborhood, or upon the deeper spots in the river itself. Some waders also appear from time to time, killdeer thrive along the moist gravel beds and some colonies of herons maintain themselves without difficulty.

In the following list "summer resident" means breeding birds, while "common resident" does not mean abundant unless so stated,—it is meant to convey the idea more of even distribution and ordinary occurrence than of large numbers, while of course "sparingly resident" means that though fairly evenly distributed the numbers are small. These terms are used in order to have the text as concise as possible and yet make the matter clear.

1. **Colymbus auritus.** Horned Grebe. One record only; ♀ Oct. 14, 1900.
2. **Podilymbus podiceps.** Pied-billed Grebe. Casual winter resident.
3. **Larus californicus.** California Gull. Casual winter visitant.
4. **Phalacrocorax dilophus albociliatus.** Farallone Cormorant. Occasionally seen in winter and spring.
5. **Pelecanus erythrorhynchos.** American White Pelican. Occasionally seen in winter.

6. **Anas boschas.** Mallard. Winter visitant. Some years a pair remain to breed.
7. **Anas americana.** Baldpate. Fall and winter visitant.
8. **Nettion carolinensis.** Green-winged Teal. Fall and winter visitant.
9. **Querquedula cyanoptera.** Cinnamon Teal. Seen during spring migrations.
10. **Spatula clypeata.** Shoveller. Winter visitant.
11. **Dafila acuta.** Pintail. Fall and winter visitant.
12. **Aix sponsa.** Wood Duck. Fall visitant during migration.
13. **Aythya vallisneria.** Canvas-back. One female recorded.
14. **Aythya affinis.** Lesser Scaup Duck. Winter visitant.
15. **Clangula clangula americana.** American Golden-eye. Winter visitant.
16. **Charitonetta albeola.** Buffle-head. Winter visitant.
17. **Erismatura jamaicensis.** Ruddy Duck. Winter visitant.
18. **Chen hyperborea** (sp?). Lesser? Snow Goose. Seen during fall migration, but no specimens taken. Probably this species.
19. **Branta canadensis** (subsp?). ? Goose. Also seen during migrations in fall, but not identified.
20. **Botaurus lentiginosus.** American Bittern. Occasionally noted and apparently resident.
21. **Ardetta exilis.** Least Bittern. One seen but not taken.
22. **Ardea herodias.** Great Blue Heron. Resident. A small colony breeds every year on the ranch.
23. **Ardea virescens anthonyi.** Green Heron. Common summer resident.
24. **Nycticorax nycticorax nævius.** Black-crowned Night Heron. Occasionally seen and apparently resident.
25. **Grus mexicana.** Sandhill Crane. Sometimes seen flying over in flocks.
26. **Rallus virginianus.** Virginia Rail. Fairly abundant resident in tule patches and alfalfa fields.
27. **Fulica americana.** American Coot. Common winter resident. One or two pair remain to breed in some seasons. We have two or three sets of eggs in our collection from here.
28. **Phalaropus lobatus.** Northern Phalarope. A few recorded during spring migrations.
29. **Recurvirostra americana.** American Avocet. One flock seen Aug. 5, 1900, and two ♂♂ and one ♀ secured.
30. **Gallinago delicata.** Wilson's Snipe. Winter resident. Always a few feeding in wet spots.
31. **Totanus melanoleucus.** Greater Yellow-legs. One seen Oct. 14, 1900.
32. **Actitis macularia.** Spotted Sandpiper. One record only, ♂ May 6, 1898.
33. **Numenius hudsonicus.** Hudsonian Curlew. One flock seen May 4, 1899 and three ♂♂ secured.
34. **Ægialitis vocifera.** Killdeer. Common resident. Abundant along river bed.
35. **Ægialitis montana.** Mountain Plover. Small flocks seen Jan. 15, 1898 and and two ♀♀ secured.
36. **Lophortyx californicus.** California Partridge. Abundant resident. Intermediate between *californicus* and *vallicolus*. Almost typical specimens of each can be found.

37. **Columba fasciata.** Band-tailed Pigeon. Seen occasionally in winter. Said to be abundant in high ranges of the Gabilans.

38. **Zenaidura macroura.** Mourning Dove. Abundant summer and sparingly winter resident.

39. **Gymnogyps californianus.** California Vulture. Formerly abundant, but now rarely seen.

40. **Cathartes aura.** Turkey Vulture. Abundant resident for the greater part of the year, but notably scarce for a few weeks in midwinter.

41. **Elanus leucurus.** White-tailed Kite. Occasionally seen.

42. **Circus hudsonius.** Marsh Hawk. Occasionally seen.

43. **Accipiter velox.** Sharp-shinned Hawk. Common winter resident.

44. **Accipiter cooperi.** Cooper's Hawk. Common winter resident. Occasionally breeds.

45. **Accipiter atricapillus striatulus.** Western Goshawk. Very rare visitor.

46. **Buteo borealis calurus.** Western Redtail. Common resident.

47. **Buteo lineatus elegans.** Red-bellied Hawk. Occasional fall visitor.

48. **Buteo swainsoni.** Swainson's Hawk. Sparingly summer resident. Some years not noted.

49. **Archibuteo ferrugineus.** Ferruginous Rough-leg. Rare winter visitant.

50. **Aquila chrysaetos.** Golden Eagle. Resident. Several pairs have lived here for years.

51. **Falco mexicanus.** Prairie Falcon. Sparingly winter resident.

52. **Falco sparverius deserticolus.** Desert Sparrow Hawk. Abundant resident except in years of drought.

53. **Pandion haliaetus carolinensis.** American Osprey. Once seen.

54. **Strix pratincola.** American Barn Owl. Common resident. In some places the river has washed against the alluvial banks and made perpendicular bluffs 20 or 30 feet high. Along these bluffs this species breeds in numbers in old squirrel holes. It also breeds occasionally in holes in trees.

55. **Asio wilsonianus.** American Long-eared Owl. Sparingly resident. A few nests have been found, but this species is seldom seen ordinarily.

56. **Asio accipitrinus.** Short-eared Owl. Once noted.

57. **Megascops asio bendirei.** California Screech Owl. Common resident. Difficult to say whether it is abundant or not.

58. **Bubo virginianus** (subsp.) ? Horned Owl. Common resident and quite abundant. Our series has never been passed upon by an expert and the variations are great.

59. **Speotyto cunicularia hypogæa.** Burrowing Owl. Common resident; scarce some years.

60. **Geococcyx californianus.** Roadrunner. Common resident.

61. **Coccyzus americanus occidentalis.** California Cuckoo. One ♀ taken June 4, 1899. No other record.

62. **Ceryle alcyon.** Belted Kingfisher. Common resident.

63. **Dryobates villosus hyloscopus.** Cabanis's Woodpecker. Common resident. The subspecies in this locality is intermediate, and seemingly *hyloscopus* rather than *harrisi*.

64. **Dryobates pubescens gairdneri.** Gairdner's Woodpecker. Common resident; quite abundant.

65. **Dryobates nuttalli.** Nuttall's Woodpecker. Common resident.

66. **Sphyrapicus ruber.** Red-breasted Sapsucker. Common winter resident.

67. **Melanerpes formicivorus bairdi.** California Woodpecker. Common resident; more or less abundant at times. Sometimes scarce in winter.

68. **Melanerpes torquatus.** Lewis's Woodpecker. Resident. Some seasons, very abundant and in others very scarce.

69. **Colaptes cafer collaris.** Red-shafted Flicker. Abundant resident. In winter the cross between *cafer* and *auratus* is not uncommon, and we found two juveniles of such July 10, 1898, Collection of J. and J. W. M., No. 3516, ♂ juv., and No. 3517, ♀ juv. Unfortunately neither parent was taken. This is the only record we have of *cafer* + *auratus* between April and October in in central California.

70. **Phalænoptilus nuttalli californicus.** Dusky Poorwill. Sparingly winter resident. No summer record, but with this species the proof is only negative, as it is a very shy bird and seldom met with.

71. **Chordeiles acutipennis texensis.** Texan Nighthawk. Abundant summer redent. Breeds in dry parts of river bed, and also in sandy places among the sage brush.

72. **Chætura vauxi.** Vaux's Swift. Occasionally large flocks are seen for a few hours, with intervals of weeks between appearances. Probably breed in the Gabilan range. Scattering birds seen throughout the year.

73. **Aeronautes melanoleucus.** White-throated Swift. Resident. A large colony has bred for years in the seams in the limestone in a quarry near the ranch, in spite of blasts and continued work. This colony was once nearly exterminated by a large blast that was fired while the birds happened to be in the crevices, but the survivors remained faithful to the spot. Hundreds were killed by this blast and apparently but few were left unharmed. We have not visited the place lately and so do not know whether the colony is increasing again.

74. **Trochilus alexandri.** Black-chinned Hummingbird. Summer resident. Common along the river bed where a wild tobacco plant grows. This species is a late arrival and leaves early, making but a short stay.

75. **Calypte anna.** Anna's Hummingbird. Common resident. Abundant in summer.

76. **Selasphorus rufus.** Rufous Hummingbird. Our records show presence only during the spring migration.

77. **Tyrannus verticalis.** Arkansas Kingbird. Abundant summer resident. Earliest seasonal record is March 16, 1901.

78. **Tyrannus vociferans.** Cassin's Kingbird. Common summer resident. Fairly abundant but not so much so as *Tyrannus verticalis*. Earliest seasonal record, March 7, 1899. Also recorded March 15, 1901. It thus seems that a few of both species of kingbird arrive in this locality quite early as compared with the San Francisco Bay region.

79. **Myiarchus cinerascens.** Ash-throated Flycatcher. Abundant summer resident.

80. **Sayornis saya.** Say's Phoebe. Common resident. Breeds early. Set of five eggs taken March 12, 1901.

81. **Sayornis nigricans semiatra.** Black Phoebe. Common resident. Abundant for this species.

82. **Contopus borealis.** Olive-sided Flycatcher. We have no record for this species, but I am almost certain of having heard its note in the pine region.

83. **Contopus richardsoni.** Western Wood Pewee. Very abundant summer resident.

84. **Empidonax difficilis.** Western Flycatcher. Abundant summer resident.

85. **Empidonax hammondi.** Hammond's Flycatcher. One record by Mr. T. E. Slevin, April 18, 1890.

86. **Empidonax wrighti.** Wright's Flycatcher. One record only, ♂ April 15, 1899.

87. **Otocoris alpestris strigata.** Streaked Horned Lark. Some specimens of apparently this subspecies were taken Oct. 1, 1899. Horned Larks are often abundant during fall migrations, but unfortunately no other subspecies has been identified so far.

88. **Pica nuttalli.** Yellow-billed Magpie. Formerly very abundant but now limited to a few pairs in favorite spots. Apparently killed off by squirrel poison. They seem to be resident, but for some months we have no record.

89. **Cyanocitta stelleri frontalis.** Blue-fronted Jay. Only one record at Paicines proper, ♂ Jan. 31, 1896. Said to be fairly abundant in Gabilan range.

90. **Aphelocoma californica.** California Jay. Abundant resident.

91. **Corvus americanus.** American Crow. Varingly abundant summer resident.

92. **Xanthocephalus xanthocephalus.** Yellow-headed Blackbird. Occasionally noted during fall, winter and spring. Only one or two at a time among other blackbirds.

93. **Agelaius gubernator californicus.** Bicolored Blackbird. Abundant resident except in midwinter when it is apt to be scarce.

94. **Agelaius tricolor.** Tricolored Blackbird. Flocks of this species occasionally pass through, flying north, during April.

95. **Sturnella magna neglecta.** Western Meadowlark. Abundant resident.

96. **Icterus bullocki.** Bullock's Oriole. Very abundant summer resident. Earliest noted March 15.

97. **Scolecophagus cyanocephalus.** Brewer's Blackbird. Abundant resident.

98. **Coccothraustes vespertinus montanus.** Western Evening Grosbeak. Never noted before this year (1901), when several were taken in February and March. Only a few seen.

99. **Carpodacus purpureus californicus.** California Purple Finch. Rare. Occasionally noted in spring.

100. **Carpodacus mexicanus frontalis.** House Finch. Very abundant resident.

101. **Astragalinus tristis salicamans.** Willow Goldfinch. Abundant winter resident.

102. **Astragalinus psaltria.** Arkansas Goldfinch. Common resident, varyingly abundant.

103. **Astragalinus lawrencei.** Lawrence's Goldfinch. Common summer resident.

104. **Poœcetes gramineus confinus.** Western Vesper Sparrow. One record, ♂, October 7, 1898.

105. **Ammodramus sandwichensis alaudinus.** Western Savanna Sparrow. Abundant winter resident.

106. **Ammodramus savannarum perpallidus.** Western Grasshopper Sparrow. Notes heard on several occasions but no absolute record.

107. **Chondestes grammacus strigatus.** Western Lark Sparrow. Abundant resident.

108. **Zonotrichia leucophrys gambeli.** Intermediate Sparrow. Common winter resident.

109. **Zonotrichia leucophrys nuttalli.** Nuttall's Sparrow. Common winter resident. These two subspecies in the aggregate are very numerous in winter, but we do not know whether the Intermediate is largely represented or not as it is very difficult to segregate them.

110. **Zonotrichia coronata.** Golden-crowned Sparrow. Common winter resident.

111. **Spizella socialis arizonæ.** Western Chipping Sparrow. Abundant summer resident.

112. **Junco hyemalis oregonus.** Oregon Junco. Common winter resident.

113. **Junco hyemalis thurberi.** Thurber's Junco. Recorded in March and April.

114. **Junco hyemalis pinosus.** Point Pinos Junco. Recorded by T. E. Slevin April 18, 1890.

115. **Amphispiza belli.** Bell's Sparrow. Resident in sage brush, sparingly in winter but sometimes abundant in spring.

116. **Melospiza melodia heermanni.** Heermann's Song Sparrow. Common resident around springs and small tule patches.

117. **Melospiza lincolni.** Lincoln's Sparrow. Common winter resident in swampy places. Sometimes rather abundant in March ahd April.

118. **Pipilo maculatus oregonus.** Oregon Towhee. Common resident; not abundant.

119. **Pipilo fuscus crissalis.** California Towhee. Abundant resident.

120. **Zamelodia melanocephala.** Black-headed Grosbeak. Common summer resident.

121. **Cyanospiza amœna.** Lazuli Bunting. Common summer resident.

122. **Piranga ludoviciana.** Louisiana Tanager. Not an unusual spring and fall migrant. Very abundant during the noted wave in spring of 1896.

123. **Progne subis hesperia.** Western Martin. Common summer resident. Breeds in the neighborhood but site of present colony not known. Noted as early as March 30.

124. **Petrochelidon lunifrons.** Cliff Swallow. Very abundant summer resident.

125. **Hirundo erythrogaster.** Barn Swallow. Summer resident ; not common.

126. **Tachycineta bicolor.** Tree Swallow. Common summer resident.

127. **Tachycineta thalassina.** Violet-green Swallow. Occasional flock seen in late winter or early spring. Common summer resident.

128. **Clivicola riparia.** Bank Swallow. Common summer resident, abundant in places.

129. **Stelgidopteryx serripennis.** Rough-winged Swallow. Common summer resident. Arrives very early in spring.

130. **Ampelis cedrorum.** Cedar Waxwing. Regular winter visitant. Occasional small flocks seen at any time during winter and early spring, but not resident.

131. **Phainopepla nitens.** Phainopepla. Common winter resident. Some years quite abundant.

132. **Lanius ludovicianus gambeli.** California Shrike. Common resident. Abundant for bird of this species.

133. **Vireo gilvus.** Warbling Vireo. Abundant summer resident.

134. **Vireo solitarius cassini.** Cassin's Vireo. Fairly common summer resident in willow growth along the river.

135. **Vireo huttoni.** Hutton's Vireo. Common resident.

136. **Helminthophila rubricapilla gutturalis.** Calaveras Warbler. This species was only noted on one occasion. Two individuals were seen on April 20 1899, and one captured by Mr. T. E. Slevin, who was collecting with me at the time.

137. **Helminthophila celata lutescens.** Lutescent Warbler. Sparingly summer resident at Paicines, but more numerous along brushy hillsides in neighborhood.

138. **Dendroica æstiva.** Yellow Warbler. Abundant summer resident.

139. **Dendroica coronata.** Myrtle Warbler. Winter resident. Frequently found among *D. auduboni*.

140. **Dendroica auduboni.** Audubon's Warbler. Abundant winter resident. A few remain until about May 1, and acquire nearly full breeding plumage before leaving.

141. **Dendroica nigrescens.** Black-throated Gray Warbler. One record ♂, October 2, 1898.

142. **Dendroica townsendi.** Townsend's Warbler. Occasionally taken early in spring, but never resident at any time. Our record, two ♂ ♂ taken May 14, 1896.

143. **Dendroica occidentalis.** Hermit Warbler. Only record, May 12, 1896.

144. **Geothlypis tolmiei.** Macgillivray's Warbler. Sparingly summer resident in willow thickets.

145. **Geothlypis trichas occidentalis.** Western Yellowthroat. Common resident.

146. **Icteria virens longicauda.** Long-tailed Chat. Summer resident, but only met with in most favorable spots.

147. **Wilsonia pusilla pileolata.** Pileolated Warbler. Abundant summer resident.

148. **Anthus pensilvanicus.** American Pipit. Very abundant winter resident.

149. **Mimus polyglottos.** Mockingbird. Sparingly winter resident. Lives on berries of mistletoe.

150. **Harporhynchus redivivus.** California Thrasher. Common resident. Earliest breeding record Feb. 22, 1895.

151. **Salpinctes obsoletus.** Rock Wren. Resident in steep slides and rocky places. More abundant for the last two years than formerly.

152. **Catherpes mexicanus punctulatus.** Dotted Canyon Wren. Resident in, steep, rocky canyons. Quite numerous in some spots.

153. **Thryomanes bewicki spilurus.** Vigor's Wren. Abundant resident.

154. **Troglodytes ædon parkmani.** Parkman's Wren. Common summer resident.

155. **Cistothorus palustris paludicola.** Tule Wren. Sparingly resident in tule patches.

156. **Sitta carolinensis aculeata.** Slender-billed Nuthatch. Common resident.

157. **Sitta canadensis.** Red-breasted Nuthatch. Our only records are ♂ Oct. 4, 1898; ♀ Oct. 5, 1898 and a few more seen at that time.

158. **Parus inornatus.** Plain Titmouse. Abundant resident.

159. **Chamæa fasciata.** Wren-Tit. Common resident. Intermediate form, but seems nearer *fasciata*.

160. **Psaltriparus minimus californicus.** California Bush-Tit. Abundant resident.

161. **Regulus calendula.** Ruby-crowned Kinglet. Common winter resident. Its striking little song often heard in March. Among the specimens we have taken there are none of the darker northern form.

162. **Polioptila cærulea obscura.** Western Gnatcatcher. Common resident. Abundant in spring and early summer.
163. **Hylocichla aonalaschkæ.** Dwarf Hermit Thrush. Abundant winter resident.
164. **Merula migratoria propinqua.** Western Robin. Very abundant winter resident.
165. **Hesperocichla nævia.** Varied Thrush. First noted March 13, 1901, when a number were seen in a grove of live oaks. We have never come across this species here before, and none of the men on the ranch were familiar with it.
166. **Sialia mexicana occidentalis.** Western Bluebird. Abundant resident.
167. **Sialia arctica.** Mountain Bluebird. Regular winter visitant. Sometimes very numerous.
168. **Passer domesticus.** English Sparrow. Common nuisance around buildings

This list is approximately complete as far as it goes, yet hardly a year passes without a new record being made of some visitant or wanderer. As neither my brother nor I have resided at Paicines for any length of time it is impossible to give correct data of arrival of migrants, and this we have made no attempt to do.

The past three years of successive drought reduced the bird life as far as immigrants were concerned to a very low ebb, and even affected many of the resident species. This winter however brought with it abundance of rain, and at the present writing the outlook for luxurious vegetation in the way of crops, grass, etc., could not be surpassed. The result of this will be a great plenty of food for the birds and it will be interesting to see whether this will at once produce a marked increase in the bird life over the last three seasons.

San Geronimo, Cal., April 6, 1901.

* * *

Breeding Range of the Allen and Rufous Hummingbirds.

I was glad to see an answer in the July CONDOR to my query in regard to the breeding of the Rufous Hummer in California. But I do not consider the evidence offered by Mr. Emerson to be unquestionable or even worthy of any credence whatever. For have I not again and again seen male Rufous Hummers pursuing female Anna, Black-chinned and even Costa Hummers, where the latter appeared in the vicinity of the temporary feeding grounds of the pugnacious Rufous? And is it not probable that the female of the Allen Hummer would be treated in the same way if similar opportunity afforded, just as Mr. Emerson's two instances illustrate? And then too, has it ever been shown that after mating the male of any of our hummingbirds has anything whatever to do with the female or nest? Unless otherwise proven it seems to me more probable that the nests observed were those of the Allen. It seems to me an almost impossible feat for even the keenest observer to distinguish the female Rufous and Allen Hummers in life, though the two species should present themselves side by side at close range. For I am sure it is hard enough to identify the two in the hand. I am aware that a number of good authorities have recorded the breeding of the Rufous Hummer in Central and Southern California. But it will do these no injustice for some one to present fresh evidence of an unquestionable nature (if obtainable!); to be explicit, an incubating female taken with the nest and eggs.

The reasons for my present position in this regard are somewhat as follows :

Selasphorus rufus is typically a bird of the Humid Northwest Coast Boreal (of Merriam). The extreme of brown coloration is reached in both sexes of this species; and it is a matter of long observation that the brightest browns are developed in birds of that region, whether resident, or present only during the breeding season as in the case of the Rufous Hummer. For it is also known that the breeding environment of migratory species is much more potent in its effects than is their environment during the rest of the year. Now the Humid Northwest Coast Boreal extends southward along the Pacific Coast from the vicinity of Sitka, Alaska, to Humboldt Bay, California (*fide* Merriam). *S. rufus* breeds abundantly in most of this faunal area, and thus if it breeds at all in California I should expect to find it in the Humboldt Bay region, but *not south* of that vicinity. *Selasphorus alleni* is known to breed abundantly in the San Francisco Bay region and north through Marin County and south through the Santa Cruz and Santa Lucia Mountains to the Santa Barbara Islands. Now the "San Francisco Bay Region" is principally Humid Upper Sonoran, and the narrow coast belt to the north up to Humboldt Bay and southward through the Santa Lucias is Humid Pacific Coast Transition as well as Humid Upper Sonoran. *S. alleni* appears to be exclusively a breeding bird of this Humid Transition and Humid Upper Sonoran, and I do not know of its breeding outside of those faunal areas. The Allen Hummer is characterized by a less extensive brown coloration in both sexes than the Rufous. This is according to our theory, for the humidity and cloudy weather is less in the summer habitat of the former than in that of the latter. But the considerable amount of brown of *S. alleni* still shows it to be a normal inhabitant of a moderately humid area. And, in fact, do we ever find it breeding in any of the arid portion of the interior and Southern California? It seems to me probable, therefore, that the form *alleni* has evolved in this southern less humid coastal area at first as a geographical race or subspecies of *S. rufus*. Or, perhaps, since the origin of the hummingbirds is undoubtedly neotropical, the reverse was the case; that is, that *rufus* evolved from a lighter-colored ancestor more nearly like *alleni*. At any rate my point is that *Selasphorus alleni* and *S. rufus* should be as yet confined to separate zonal or faunal areas in the breeding season. I believe geographical isolation to be absolutely essential to the differentiation of two forms. *S. alleni* and *S. rufus* are very much alike; their distinguishing characters are slight and not altogether constant, and perhaps intergradation may still exist somewhere in the Humboldt Bay region. I do not think it quite reasonable to expect to find two such close forms breeding in the same locality or even anywhere in the same fauna, such as includes the San Francisco Bay region, where *S. rufus* has been reported nesting so often, but where I know that *S. alleni* is a very common breeder.

Of course it is possible, even accepting the above doctrine, that after the complete differentiation of the two forms and disappearance of intermediates, *S. rufus* may have invaded the breeding habit of *S. alleni*, and that the two species may thus now nest in the same area. And this is undoubtedly what has happened in the case of other species of hummingbirds breeding in the same locality, but which are much more remotely related. Yet it seems to me that the present case is not so far properly proven. It must be kept in mind that both *S. rufus* and *S. alleni* occur broadcast during the migrations, and the males, immediately after mating may wander many hundred miles in search of favorable feeding grounds, and thus occur at the same season and in the same locality with other breeding species of hummingbirds, mingling with them in combat or play. I therefore repeat the query made in the May CONDOR. JOSEPH GRINNELL.

Nesting Habits of the Desert Sparrow Hawk Near Santa Monica, Cal.

BY H. G. RISING, LOS ANGELES, CAL.

IN this locality the sycamore trees found in the mouths of the canyons leading back into the foothills have always been favorite nesting places for the Desert Sparrow Hawk (*Falco sparverius deserticolus.*) These trees are many of them very large, and the numerous cavities and woodpeckers' excavations furnish ideal nesting sites for these birds. Although there are a good many oak trees among the sycamores the Sparrow Hawks do not nest in them, and during five years collecting in this locality I have not found a single set of their eggs in an oak tree.

There is one fact in regard to the nesting of these birds which I have never found any one able to explain. This is, why the birds never have to abandon a set of eggs on account of water during wet seasons. I have so often had the bird refuse to leave the nest that I always climb to it whether the bird is flushed or not. I have many times found a nest filled with water, and I always feel in the water for eggs but have never found any. These rains often occur right in the height of the nesting season, sometimes filling nests from which I had already taken one set of eggs. It seems strange that the birds do not get caught in some of the leaky nests once in a while, but this does not seem to be the case.

The nesting season here varies greatly, beginning as early as the 15th of March in some years and in others not until the middle of April. The duration seems to depend to a great extent upon how many times the birds are robbed, as they will lay several sets if they are not allowed to hatch the eggs.

This spring I started out with the intention of taking a series of Sparrow Hawks' eggs for Mr. G. Frean Morcom of Los Angeles. As usual I did all of my collecting near Santa Monica, with the single exception of one trip up the beach to a canyon near Point Dumas, where I secured five sets of eggs. The remaining twenty-eight sets of this series all came from the same locality in which I have done most of my collecting, Santa Monica and vicinity.

In making this series I used especial care with reference to keeping the eggs from each nest separate from those taken from other nests, so that the several sets taken from one nest during the season would constitute a series of itself. My intention was to watch the nests closely and to take each set laid as soon as it was complete, in order to find out how long the birds would keep on laying; but I was unfortunately obliged to stop collecting the last of May and so could not complete the experiment. I took second and third sets from nests in several instances and in one case even got the fourth set. The intervals between the completion of the sets ranged from 20 to 26 days, with the exception of two, one of which was 29 days while the other was 40 days.

The following is a short record of a few of the nests from which I took sets this season. For the sake of convenience I refer to them as Nest No 1, No 2, etc.

Nest No. 1 is a woodpecker's excavation in the dead stump of a sycamore tree, and is about 15 feet above the ground. The mouth of the opening has been broken open until the hole is about five inches wide by fourteen deep. I took the first set of five fresh eggs from this nest on March 24, the parent bird watching proceedings from a neighboring tree. The second set of five eggs, also perfectly fresh, was taken April 18, the bird being flushed before the nest was reached. The third set, consisting of four slightly incubated eggs, was taken May 9. A fourth set of two eggs, also slightly incubated, was taken on the 29th of May. On these last two occasions the birds would not leave the nest and had to be taken off before the eggs could be collected.

Nest No. 2 is a large natural cavity in the trunk of a live sycamore and is about twenty feet up. The cavity is about eighteen inches wide by three deep. The first set was taken from this nest on March 24, and consisted of five eggs, incubation far advanced. The second set of four eggs, incubation also advanced, was taken May 3, and, on the 25th of May, a third set of five slightly incubated eggs was taken from this nest.

Nest No. 3 is a natural cavity in the trunk of a live sycamore tree. This cavity is five inches wide by twelve deep, and is placed about 20 feet above the ground. The first set consisting of six fresh eggs, was taken from this nest on March 31, the bird being flushed. The second set of five eggs, slightly incubated, was taken on April 25. A third set consisting of five badly incubated eggs, was taken on the 25th of May. The parent bird was not on the nest on either of the two last visits.

Nest No. 4 is a woodpecker's excavation in the dead limb of a sycamore and is 30 feet up. The limb is about five inches through and the stub is hollowed out to a depth of six inches, leaving a mere shell of wood. Three sets were taken from this nest during the season; one of five eggs on April 7, one of five eggs on May 3 and the last, consisting of four eggs, on May 29th. The incubation in each of these three cases was slight.

By making a comparison of the eggs in this series, the similarity of the different sets from the same nest is seen to be very strongly marked in almost all cases. The resemblance is so strong that the sets from the same nest can be picked out from the others with but little difficulty. This goes to prove that the birds keep on using the same nest all through the season, unless it is destroyed in some way. In one case, in which I disturbed the nest while getting the eggs, the birds simply moved about one hundred feet to another tree and there laid their second and third sets. These three sets are so different from any others which I have seen, that I am positive that they are from the same birds.

From observations taken during several years collecting in the same locality I am led to believe that the birds keep their nests from year to year, going back to the same nest they occupied the previous season. I have noticed a great deal of individuality in the actions of the birds while their nests are being robbed, the bird at any given nest always acting the same. Some of the birds will immediately fly away on being disturbed and not appear again. Some will perch in some near-by tree and scold. Others will hover in the air above their nest and scream at the intruder, while some will show fight and dart back and forth near the face of the person disturbing them. I have noticed that in the great majority of instances I have met with the same treatment at the same nests for several successive years. In three or four cases especially, this has been brought very strongly to my notice.

The sets this season averaged larger than for some years past. I collected two sets of six eggs each and found another so badly incubated that I was forced to leave it. The second and third sets were nearly all of five eggs each where usually they drop off to four and three eggs to a set. One set that was taken this year shows some features that merit a little fuller description. The set consists of five eggs and only two are at all similar. One of the eggs is fully a third larger than the others and is pure white. One has the large end completely covered with brown markings and one has the small end covered in the same manner. In addition to this, this last egg is considerably smaller than any of the others and is not nearly so pointed at the small end. The other two are rather lightly and evenly marked all over.

Notes on the Nesting of the Western Yellowthroat.

IN the spring of 1897 I found this species nesting quite abundantly in the low, damp districts which are overgrown with wild berry bushes and marsh grass in the vicinity of Pasadena. I spent considerable time watching this bird, particularly during the month of April of that year. The nest is usually well concealed, and no easy matter to find, even if you know there is one close by.

On the approach of any one in the proximity of the nesting place the female will noiselessly slip from the nest and very quietly make her way through the underbrush, and will make her appearance uttering an anxious twitter several yards from the vicinity of the nest. The first sound from her will generally bring the male, if he has not already shown himself. Between the 7th and 24th of April, I took sixteen nests of this species all containing four eggs, several of the nests being found before the sets were complete and taken later. With one exception all of these nests were similarly constructed, situated from one to eight feet from water and ranging from three to twenty-four inches from the ground.

The exception was a nest taken on the 22nd of April from a bunch of dried weeds close to a berry bush, twenty-five feet from the water line of Wilson's Lake. This nest was eighteen inches from ground and partially roofed over, and the only one I have ever found of this species so constructed. I have never found a complete set of less than four nor one that contained more than that number of eggs. During the entire season of 1897 I took twenty-one sets of eggs, with nests, of this bird. A fine, dry grass is the principal material used in the construction of the nests, the interior sometimes being lined with hair.

H. J. LELAND.

Los Angeles, Cal.

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The Monterey and Coast Hermit Thrushes at Pasadena.

In looking over a large series of thrushes collected about Pasadena, I find a specimen of *Hylocichla aonalaschkæ verecunda* described by Osgood, *Auk*, April, 1901, p. 183. It was taken at Bailey Flats in the Sierra Madre mountains ten miles north of Pasadena, at an elevation of about 6,000 feet on Oct. 23, 1896.

I also find four specimens of *Hylocichla aonalaschkæ slevini* described by Grinnell, *Auk*, July, 1901, p. 258. Two specimens were taken April 11, one on April 8 and the other April 25, all in 1896. Mr. Grinnell's Pasadena specimen was also taken in April (25th). He points out a probable line of migration from the fact that a specimen has been taken at one other point to the south of Pasadena, namely, Santa Margarita Island, Lower California. Another interesting fact connected with this migration is that the northward movement does not reach the vicinity of Pasadena until April, by which time the Dwarf Hermit Thrush (*Hylocichla aonalaschkæ*) has departed; in fact the latter are nearly all gone by the latter part of March.

FRANK S DAGGETT.

Pasadena, Cal.

* * *

HEARD IN THE MARSH.

First Melospiza—"They say the Tenth Supplement to the Check-List simply upset things."

Second Melospiza—"Yes, I had been told that my bright and superior garb would proclaim me ruler of this tule waste,—but the goods have not been delivered. By the way, Mr. Pipilo on yonder bush seems unusually brisk this morning. Wonder what's up?"

Pipilo f. carolæ (overhearing the conversation)—Haven't you heard the news? Great joke! While the Committee were counting the tail spots of my friend *Dendroica c. hooveri* I slipped on my fall suit and they really didn't know me!"

Whereupon the Second Melospiza acknowledged the joke a good one and ordered dinner for three.

COMMUNICATIONS.

THE DECISIONS IN THE TENTH SUPPLEMENT.

Editors THE CONDOR:—

The Tenth Supplement to the A. O. U. Check-List published in the July *Auk* contains many surprises to our western ornithologists in the wholesale manner in which carefully worked out species and subspecies have been relegated to obscurity. If it were the policy of the Committee to discourage the creation of trinomials entirely our workers might well receive its decision with good grace, but when it accepts a subspecies like *Pipilo fuscus carolæ*, whose invalidity had already been pointed out by its describer, we can only conclude that our judges sit too far away to fully appreciate the conditions which surround the western worker.

Our eastern friends would not consider it strange if climatic conditions and other influences produced two subspecies in a country stretching between New York and Florida. One could readily grasp the idea that a *Geothlypis* feeding and breeding in Florida might differ from one feeding and breeding in good old New England. Now as a matter of fact we have a wider range of conditions out here in California, and that in some cases in a section of country easily covered on an ordinary map by a twenty-five cent piece. Take for instance the San Joaquin valley where there are 300 days of sunshine and a yearly rainfall of only eight inches, with a semi-arid condition existing most of the year. Compare this with the humid coast side of the range but a comparatively short distance away with 40 inches of rainfall and only 100 days of sunshine, producing a damp, foggy climate.

When it has been shown that a *Melospiza* on the humid coast side of the range differs materially in many respects: that it is only found in a given area in the breeding season, for it has never been taken elsewhere at that time; that a partial migration occurs when in the fall and winter it scatters more or less, at which times it is taken mingled with other forms of the same genus, but always returning to breed in its chosen habitat; when all these facts have been carefully shown, one feels that there is some basis for the claim that it deserves to be recognized as a subspecies.

It is to be regretted that the very carefully prepared life zone and faunal area maps of California compiled and in use by several California workers have not been published for the benefit of those who are not in a position to realize the enormous range of conditions which exist in California owing to differences of elevation, or proximity to ocean influences. Fortunately our few systematists who are working out these problems appreciate these difficulties and are prepared to accept with good grace the decision of the Committee, knowing that it is only a question of time when these facts will be made apparent to all.

One thing however is certain, and that is our western workers have a double task in that they not only must point out a new species or subspecies, but they must also work out its whole life history, migration etc., as influenced by the peculiar topography of California, before they can hope for a ready recognition of their claims. In other words they are confronted by the necessity of a strong educational crusade along the lines noted above. Meanwhile let us not exhaust our stock of patience but rather let us hang out the sign, that in early California days, ornamented certain thriving places of business, when the knowledge of our state as a whole was as crude as is our present knowledge of its birds,—"Don't shoot the fiddler; he's doing the best he can." F. S. DAGGETT.

Pasadena, Cal., Sept. 1, 1901.

A DEFENSE OF BIRD HORIZONS.

Editor THE CONDOR:—

My attention has recently been called to a review and criticism of *Wilson Bulletin* No. 33, which appeared in the March-April CONDOR. While I entirely sympathize with the critic in his efforts to guard the avifauna of his home region against misrepresentation, I cannot rid myself of the impression that the purpose of 'A Summer Reconnoissance In The West" has been largely misconceived in his review.

The very word 'reconnoissance' was chosen to indicate the rapid and necessarily incomplete nature of the work. It would have been presumptuous on our part if we had thought to vie in either accuracy or completeness with carefully prepared local lists. Indeed Mr. Jones expressly says in his introduction: "In rapid work of this kind there must be a considerable margin of error." Some few of our identifications were based entirely upon geographical considerations. It is not possible, for instance, to tell the difference, *in the field*, between a Samuel and a Herrmann Song Sparrow.

By those who do not subscribe to the sentiment that the only good bird is a dead bird, recourse must be had to authorities on distribution; and these are often meager or deficient. In view therefore of the manifest limitations of our chosen work we must modestly disclaim any intention of clashing with the local divinities in matters of expert identification. But after all, the list of errors which is accredited to my colleague in the article under consideration is easily twice too large.

A word remains, perhaps, to be said in justification of the task as we conceived it. Without any intention of publishing authoritative "local lists" it nevertheless seemed worth while to illustrate the opportunities of the observant traveller in passing through an unfamiliar region. One who teaches in one field may learn in another without thereby forfeiting his right to serve other learners in the process. Facility in rapid field identification is a thing well worth striving for, even at the risk of certain minor inaccuracies which the careful local student could avoid. Indeed it seems to us that the line of vital progress is right here and that the ability to distinguish forty-nine species out of fifty 'on the wing' is worth more than the ability to determine the subspecific rank of fifty dead birds. Respectfully,

W. LEON DAWSON.

Columbus, O.

Falco columbarius at Santa Clara, Cal.

On October 18, 1900, Mr. Wm. L. Atkinson of this place collected a fine specimen of the Pigeon Hawk (*Falco columbarius*) just north of Santa Clara. The bird is a male in adult plumage, and was shot from a fence bordering a seed field, from which the hawk doubtless secured its prey in the shape of various sparrows which frequent the field. C. BARLOW.

Santa Clara, Cal.

GENERAL NEWS NOTES.

Walter E. Bryant has returned from a several months' trip to Guatemala and Central America.

Harry Beal Torrey of Berkeley has been appointed instructor in the zoological department of the University of California.

Prof. Leverett M. Loomis, after a vacation in the East, has returned to his duties as curator in the department of ornithology of the California Academy of Sciences.

Prof. Chas. R. Keyes has returned from a visit to his home in Mount Vernon, Ia., and is filling his chair at the University of California.

John J. Williams has spent several months at Independence Lake during the summer, engaging in bird work as opportunity offered.

Walter K. Fisher, while engaged in Biological Survey work in Kern and Tulare counties in August, made a side trip to the Sequoia National Park, camping on Alta Peak at 11,000 feet altitude.

Richard C. McGregor writes from Dutch Harbor, Alaska under date of June 28, that he is pursuing ornithology in addition to his Coast survey work, having some 300 skins and some interesting sets of eggs up to the time of writing.

Prof. F. E. L. Beal and W. Otto Emerson are enjoying a ten days' collecting trip at Pacific Grove. Professor Beal has covered a greater portion of the fruit districts of the state during his stay in California.

Robert E. Snodgrass has been serving as a member of a Commission specially appointed by the California Fish Commission to determine the food of the seals and sea-lions occurring along the Californian coast. Fishermen have steadily accused these interesting animals of destroying food fishes, but the work of the commission thus far has nor concurred in the charge.

Mr. Arthur L. Bolton, prominently known as a member of the Cooper Ornithological Club, was united in marriage to Miss Mae Saylor at Tempe, Ariz., on July 20. Mr. Bolton formerly resided at Berkeley, Cal., where his earnest and unassuming method of work won for him many friends, who extend their cordial well wishes. Mr. Bolton is now permanently located at Tempe.

The occurrence of specimens of the California Vulture is always of interest, so we borrow the following from a recent letter from Mr. F. S. Daggett: "A handsome big condor lit not 50 feet from Chas. Groesbeck while he was ploughing his orange orchard. The bird did not wait long enough for him to get a pinch of salt or a gun. Now Charley plows with a full arsenal strapped to his plough. He even contemplates killing one of his horses and hiding in a pit nearby, but the Southern Division Cooper Club members have sent in so many applications for reserved seats he has decided to postpone the capture."

Miss Jean Bell of Ridley Park, Pa. has disposed of her superb collection of birds' eggs to John Lewis Childs of Floral Park, N. Y. In acquiring this collection Mr. Childs becomes the possessor of what is undoubtedly the finest private collection of North American birds' eggs in existence. Miss Bell devoted much time and money to the work of building up the collection, and most of the sets of little-known and rare species taken in recent years by field workers found their way into her collection. Doubtless Mr. Childs will continue the same policy, so that the collection will not be surpassed in years to come. Mr. J. Parker Norris Jr's warbler series will likewise probably remain the finest in America.

THE CONDOR.

Bulletin of the

COOPER ORNITHOLOGICAL CLUB

OF CALIFORNIA.

Published bi-monthly at Santa Clara, Cal., in the interests and as Official Organ of the Club.

CHESTER BARLOW, - - Santa Clara, Cal.,
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WALTER K. FISHER, Stanford University Cal.
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Associates.

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This issue of The Condor was mailed Sept. 17.

EDITORIAL NOTES.

A Club Congress for 1903. Some especially enthusiastic fall and winter meetings of the Club are being arranged, and it is hoped that members at a distance who have heretofore for various reasons been unable to attend a session of the Club, will make a special effort to be present at one or more meetings during the winter. With a membership extending from Siskiyou to San Diego and east to the Sierras, and with but two recognized places of meeting in the State, the Club has worked under certain disadvantages which less energetic societies might never have overcome but which may in the future be largely remedied by the "chapter" arrangement outlined by Mr. Daggett in our last issue.

The business of the Club during the course of the year is transacted in both Divisions by perhaps one-third of the total membership, the remaining members being too far removed to take an active part. This same minority of the membership supervises the Club's affairs and directs its destiny, while the remaining membership must perforce keep in touch with the Club's progress solely through the medium of THE CONDOR. It is to the credit of these distant members that many excellent suggestions and papers reach the Club through their energy and direct efforts. It is therefore hoped that many of the "outside" members will make an especial effort to attend at least the Annual Meeting of their Divisions and listen to the reports of the progress made during the year.

It is apparent that at no distant date the Cooper Ornithological Club will find itself arranging for a State Meeting. By no other means can the Club as a whole become cognizant of its strength or comprehend the extent of its membership. Out of its active membership of 160 it may safely be assumed that upward of one-third of the members of the Club would attend a general meeting offering a special programme, and those familiar with the interest taken at the regular meetings can imagine the enthusiasm attendant upon bringing together 50 or 75 ornithologists,—all from a comparatively small area! We daresay that such a session would rival an A. O. U. Congress in point of enthusiasm!

The Cooper Ornithological Club celebrated its eighth year of existence in June last, and the summer of 1903 will mark the tenth anniversary of the Club. To the older members it will have been ten years of co-operative ornithological study; to the more recent members, a shorter enjoyment of the same accruing benefits, and to all it will bring the memory of many a pleasant meeting. There are those whose names have rightfully found a place on America's ornithological roll of honor who will recount some of the earlier meetings of the Cooper Club with more feeling than they would perhaps today accord more notable gatherings of ornithologists. Wherefore we propose a rousing Cooper Club reunion for 1903!

Have we suffered a decadence in popular ornithological writings during the past decade? This query sounds a little incongruous in view of the present activity in ornithology, for there never was a time when specialists and systematists were as numerous as now, and the wave styled "popular ornithology" has swept the Union from shore to shore; yet to the field workers of ten, fifteen or twenty years ago there must appear a dirth of that under-current of true enthusiasm such as guided their pens to produce some of the most earnest and soul-stirring appeals to the hearts of ornithologists that we have known.

The old *Ornithologist & Oologist* has not yet ceased to be the rule by which more recent publishers have measured the merits of their magazines. Barring technical work and fads, how many latter-day bird magazines have approached this splendid ideal? We do not care to venture the answer. Where are the pens that turn out such ringing narratives as those of long ago? Where are the Hoxies, the Taylors, the Cahoons, the Clarks, the Rawsons of the '80's? Many of them are still living and doubtless find bird-study as delightful as it ever was, but their pens have ceased to pass along the cogent thoughts and the enthusiasm which are theirs.

Ornithology has progressed immeasurably; there is need for the great mass of technical work now in progress, and the extreme type of popular ornithology is probaly doing some good, but between these two is a great and growing class of ornithologists who look to the field and woodland for their inspiration. Next to their direct field work they rely upon the bird magazines to stimulate their interest by the interchange of thoughts and experiences. And again we ask: Have we suffered a decadence in our popular ornithological literature?

The editors request of contributors who may in the future send in lists for publication, that when possible they send them in typewritten form. This reduces the work of editing the manuscript to the minimum, and insures the saving of much time in proof-reading. Scientific names, at the best a bug-bear to compositors, become subject to all sorts of constructions when handed in in the form of hastily-prepared manuscript, such as results from the tedium of preparing a lengthy list. In the past it has usually been found preferable to typewrite lists rather than turn in the written copy with the risk of having to make copious alterations in the proof. The editors ask that they be spared this work, and that the typewriter be resorted to by correspondents in the preparation of future lists.

From remarks made by members at a recent meeting of the Northern Division, it is apparent that the work of bringing into the Club those ornithologists who are not affiliated with any organized movement for the study of birds has but begun. There are conscientious and competent workers, far removed from the influences of co-operative bird study, who have in their note books reliable records which should have long ago been published. A number of occurrences, each a record, were mentioned, and it rests with the Club members who are possessed of the location of this buried knowledge to become instrumental in bringing it to light. It was also stated that not a single recorded instance of the Snowy Owl in California could be found, save for one or two stray notes which are not citable owing to the exclusive use of the vernacular name. There have been a number of Snowy Owls taken in the state and it now remains for the collectors to properly record them.

The new constitution and by-laws of the Club have now been considered by both Divisions and will be adopted and in effect by January 1, and they will be printed and distributed to members. The present constitution has been carefully prepared with a view to meeting all requirements incident upon the increased growth of the Club, and the provision for forming "chapters" where a number of members are conveniently grouped, will doubtless be taken advantage of by members far removed from the places of meeting. Beginning with 1902 the annual dues of active members will be $2., this action having been taken at the urgent request of various members, who desire to see the Club increase its scope of work, as will be possible with its increased revenue.

It is always a matter of felicitation to note improvement in our contemporary magazines. In this connection we congratulate Editor Swain of the *Journal of the Maine Ornithological Society* for the excellent table of contents and appearance of the July number of this journal. Notable articles are 'Notes on the Pileated Woodpecker' by C. H. Morrell, being a record of the domestic life of a pair of these birds which frequented a beech grove, and 'Some Prehistoric Cave and Cliff Dwellers and Their Descendants' by Ora W. Knight, describing the evolution in nesting sites and manner of nest-building of the various swallows. Other interesting notes and articles round out a distinctly valuable issue.

With the passing of the summer months most of our field-workers have returned from their outings, and now comes the season of compiling notes and recording such occurrences as may be of particular interest to their co-workers. In California much of the state has been covered by Club members, and we may therefore look for some good things in the line of collecting experiences. Let each member do his share of writing and we shall be surprised at the volume of material produced. As heretofore, illustrated articles are always desirable, especially when the photographs portray birds or some of their characteristics. Photographs of mere nests and eggs, without detail and of no especial value, should be avoided.

With a State List promised at an early date, and with so competent and energetic an ornithologist as Mr. Grinnell in charge, it becomes the duty of every Club member to go through his notes and sift out all records which are likely to be of value and to assist in mapping the distribution of each species with which he is familiar.

The September number of *American Ornithology* contains an interesting article on the California Condor, together with some of the best photographs of its nests and nesting-sites which have yet appeared. The zeal which Mr. Reed is displaying is certain to draw to his magazine many valuable bird photographs.

With the November issue of THE CONDOR will be published a complete list of active Club members. It is desirable that the addresses of members be brought down to date, and to this end we request the attention of each member to the matter.

* * *

Dr. R. W. Shufeldt announces to his friends his removal from Washington to 502 West 142nd street, New York City, N. Y.

* *

Official Minutes Southern Division.

MAY.

The May meeting was held at the residence of Burnell Franklin in South Pasadena, President Daggett presiding, six members and several visitors present. H. A. Gaylord acted as secretary pro tem. The following were elected to active membership in the Club: P. C. Mitchell, Downey; J. S. Appleton, Simi; Henry Grey, Rialto; Nelson Carpenter, Escondido; R. C. Wueste, San Diego and A. Stert, Pasadena. Mr. Franklin exhibited a nest and set of five eggs of the Western Gnatcatcher containing a runt egg which measured .33x.25 inches, the set having been taken on May 25. J. Eugene Law read a paper dealing with Riverside county birds.

AUGUST.

A special meeting was held at the residence of F. S. Daggett on August 10. President Grinnell of the Northern Division called the meeting to order with six members present. The minutes of the previous (May) meeting were read and approved, after which the evening was taken up in discussing and revising the first draft of the new constitution, which the Club intends to adopt.

AUGUST.

The regular monthly meeting was held Aug. 31 at the residence of O. W. Howard in Los Angeles with eleven members and four visitors present. The resignation of W. E. Tyler was accepted. The names of Alphonse and Antonin Jay of Los Angeles were proposed for membership. Mr. Howard placed on exhibition a number of sets of eggs collected by him in the mountains of Arizona the past season. Among the interesting sets were Rivoli Hummingbird n-2. Coues' Flycatcher 2/3, 1/4; Sulphur-bellied Flycatcher 2-4, 1/3; Vermilion Flycatcher 2/3; Olivaceus Flycatcher 1-5; Cooper's Tanager 2-4; Hepatic Tanager 1/4, 1/3; Olive Warbler 1/4; Virginia's Warbler 1-5, 1/4; Red-faced Warbler 2-4; Painted Redstart 2-4. Mr. Howard described the taking of many of the sets, that of the Olivaceus Flycatcher being one of the few known sets of this bird. The difference between the eggs and those of the Ash-throated Flycatcher was pointed out, the former being smaller and more finely marked.

HOWARD ROBERTSON, Division Secretary.

* * *

Official Minutes of Northern Division.

The Division met September 7 at the residence of E. H. Skinner in San Jose, with eleven members and three visitors present. President Grinnell presided. The following were elected to active membership: H. P. Goodman and George Grimm of Napa; R. Kocher Jr., of San Jose; Chas. A. Swisler of Placerville; E. B. Towne, George Towne and J. W. Rosebrook of Palo Alto; J. E. Wilson and J. Q. Young of Stanford. The new Constitution was given its second reading and referred to the Southern Division for its final action. The following papers were read: "Recent Captures of the Guadalupe Caracara" by R. H. Beck; "Summer Birds of Washoe Lake, Nevada," by Forrest S. Hanford; "Some Characteristics of the Mountain Chickadee," by C. Barlow; "Early Californian Literature," by Joseph Grinnell. Adjourned.

C. BARLOW, Division Secretary.

* * *

PUBLICATIONS RECEIVED.

DEANE, RUTHVEN. Unpublished Letters of William Macgillivray to John James Audubon. (From *Auk*, XVIII, No. 3, July, 1901.)

SHUFELDT, DR. R. W. The Osteology of the Cuckoos (Coccyges). (Reprinted from Proc. Amer. Philos. Soc. XL, No. 165).

American Ornithology, I, Nos. 8, 9. Aug., Sept. 1901.

Bird-Lore, III, No. 4, July-Aug. 1901.

Bulletin Chicago Academy of Sciences, II, No. IV, July 1, 1901.

Journal Maine Ornithological Society, III, No. 3, July, 1901.

Laboratorium and Museum, III, Berlin, 1901.

Maine Sportsman, VIII, Nos. 95, 96. July, Aug. 1901.

Nature Study, II, Nos. 3, 4. Aug., Sept., 1901.

Novitates Zoologicae VIII, No. 2, July 5, 1901.

Notes on Rhode Island Ornithology, II, No. 3, July, 1901.

Oologist, The, XVIII, Nos. 7, 8, 9. July, Aug., Sept. 1901.

Ornithologisches Jahrbuch, VII, No. 4-5, July-October, 1901.

Osprey, The, V, No. 6, June, 1901.

Our Animal Friends, XXVIII, No. 12, Aug; XXIX, No. 1. Sept. '01.

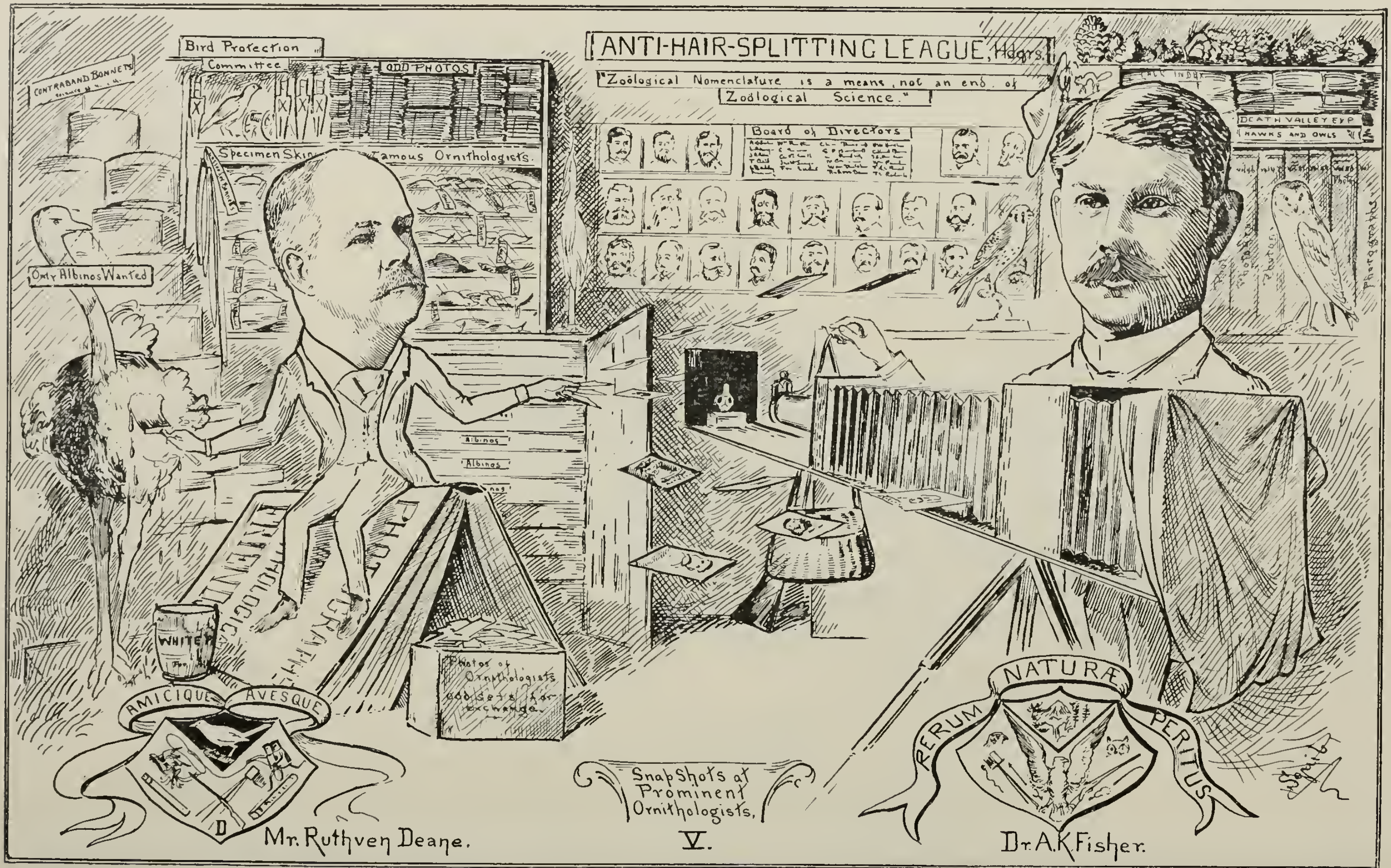
Our Dumb Animals, XXXIV, Nos. 2, 3. July, Aug., 1901.

Plant World, IV, Nos. 6, 7. June, July, 1901.

Popular Science, XXXV, Nos. 8, 9. Aug., Sept., 1901.

Proceedings Manchester Institute of Arts and Sciences. Vol. II, 1900, Published 1901.

West American Scientist, XII, Nos. 1, 2, 3. June, July, Aug., 1901.



Mr. Ruthven Deane.

Snap Shots at Prominent Ornithologists,

V.

Dr. A. K. Fisher.

The American Ornithologists' Union

CHECK-LIST OF NORTH AMERICAN BIRDS,

Second Edition, 1895, Thoroughly Revised.

* * *

The preface to this work defines its scope and object and includes selections from the A. O. U. Code of Nomenclature, of special importance in the present connection. The table of contents consists of a systematic list of orders, sub-orders and families of North American birds. The check-list proper gives the scientific and common name, number in previous list, and geographical distribution of the 1,068 species and sub-species, constituting the North American Avifauna. This is followed by a list of birds of doubtful status, and a list of the fossil birds of North America.

This new edition has been carefully revised; the recent changes in nomenclature and species and sub-species described since the publication of the first edition in 1886 are included, while the portion relating to geographical distribution has been much amplified.

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NOVEMBER-DECEMBER 1901.

THE CONDOR.

Cooper Ornithological Club. Santa Clara, California.

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THE CONDOR.

Bulletin of the Cooper Ornithological Club.

A Bi-Monthly Exponent of Californian Ornithology.

Vol. 3. No. 6. **Santa Clara, Cal., November-December, 1901.** $1.00 a Year

Catching Birds With a Camera.

WITHIN the last two or three years a great deal has been written on the art of photographing birds and their nests, but from all that has been printed not half as much may be gained as by a little experience in the field.

Hunting with a camera affords not only a pleasing pastime but encourages the closest study and its results are likely to be of considerable scientific value. To be successful the photographer must have a good knowledge of the actions, ways and habits of birds. There is a charm in getting a good picture of a nest in its natural position that one does not experience in the collecting of eggs There is a fascination in obtaining a good photograph of the bird in its wild state that one misses entirely when he uses a gun. Natural history picture-making shows a much higher development in a man's love for nature than the mere collecting

PHOTO BY HERMAN T. BOHLMAN.

YOUNG BREWER'S BLACKBIRDS.

of specimens to lie hidden away in some cabinet. Of course the latter is essential but not to such an extent as it is carried on by some people, while the former when it becomes more general will open up a much broader and more interesting field of work.

The difficulties of getting good pictures, as one will find by experience, are exceedingly numerous, yet the ability is utterly incapable of showing some birds to any advantage unless a suitable back-ground can be secured. Besides the difficulty of back-ground there is always an equal one of getting the proper light at the proper time, and the subject is not very often found in a convenient place to take a picture. In a time exposure, which is often necessary, a slight move at the critical moment

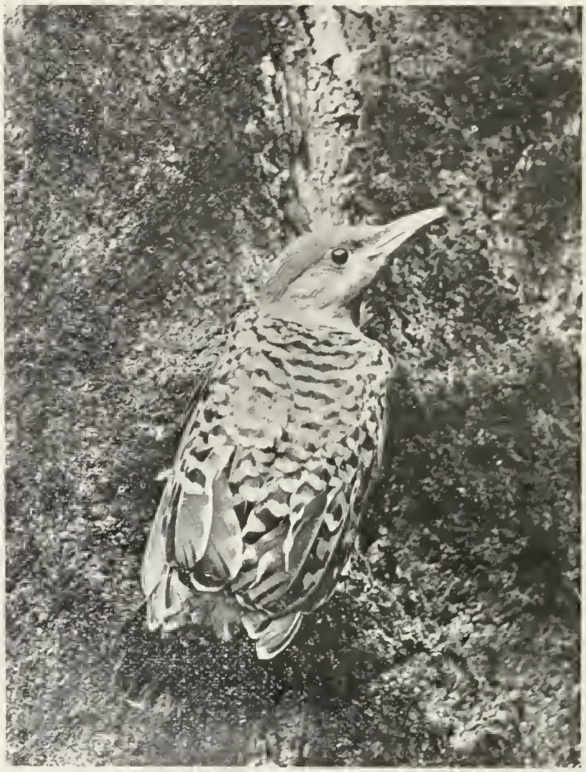


PHOTO BY HERMAN T BOHLMAN

YOUNG RED-SHAFTED FLICKER

to overcome the many obstacles and secure a good representation of the subject places a just value upon the results. The display of a few good bird plates does not in any way indicate the amount of time that the photographer may have spent in getting them or the number of other plates that may have been wasted. Nature has provided her creatures with wonderful protection as to coloring and the camera often spoils a plate. Collecting a good series of bird photographs differs from gathering eggs and skins, in that good pictures of even the commonest birds are still rare and so the photographer does not have to go far to find subjects for study.

The interest in bird photography has spread very rapidly in the east and many valuable pictures have been taken, but as yet little has been done among the birds of the Pacific Coast. Mr. Herman T. Bohlman of Portland, Oregon, has been unusually successful during the past summer in securing some fine photographs of Oregon birds. He was especially fortunate in securing a good series of pictures of the kingfisher, flicker and bush-tit, also in his work among the sea birds of the Oregon coast. While out photographing with Mr. Bohlman last summer among other things we found a Brewer's blackbird's nest in a fir tree a few feet from the ground. We were attracted by the calling of the young birds as they were being fed, and decided they were large enough to make a good photograph. After considerable preparation we were just ready to take a picture of the nest and its occupants when the mother, thinking her children in too much danger, swooped down near the nest and gave a sharp call.

It was easy to see what that meant for the youngsters until then had remained perfectly quiet, but at the loud command from the mother they all set out in different directions, each one flying as far as his wings would carry him. After a long hunt we succeeded in finding three of the four birds and placed them back in the nest where we caught their picture just as they were holding a consultation as to the next move.

Some of the most interesting pictures were taken of the home of a pair of flickers. The nest was found in the top of a stump when it was first begun and many different pictures were taken of the nest, parents and young birds. A good many plates were spoiled but a few good bird photographs well pay for the failures and for the time that has been spent. Anyone having an interest in birds can find no better way of gaining pleasure and information than by spending his leisure hours in the field with a camera.

WILLIAM L. FINLEY.

Berkeley, Cal.

* * * *

Some Winter Bird Notes.

BY MRS. C. A. MOODY, LOS ANGELES, CAL.

THIS does not profess to be a "paper," still less a scientific essay,—but a few hasty notes of bird life on our home place. This is on the Sycamore Grove Tract on what was evidently once the bed of a considerable river. The soil is light and sandy, the uncultivated parts appearing quite barren during a dry year.

From the last of September to this date (December 6,) the absence of birds about here was rather surprising to me. Possibly it was because we had only recently moved in and were strangers to them. The shrike and black phoebe I soon learned were daily visitors. The red-shafted woodpecker was often seen, busily drilling for food in the trees, while occasionally two others appeared, having conspicuous black and white markings, one with a red patch on the head. The latter I concluded was Gairdner's woodpecker and the other Nuttall's, a species belonging to the ladder-backed group.

This day, however, they came in crowds and with a great clatter. The songsters were unanimous in declaring that it was an ideal morning in bird-land. A certain crispness in the air seemed to bring out the songs fuller and clearer. The linnets were to be heard above all the rest, so that the little goldfinches had to work very hard to be heard at all, while they flitted from branch to branch of the sycamore trees, picking at the tassellated balls packed so full of tiny seeds. Meadowlarks and warblers joined in the chorus and from the distance came the loud call-note of the red-shafted woodpecker, by way of letting us know he was still with us.

The shrike, usually so still and contemplative, caught some of the joyous spirit and rolled out now and then a few sweet notes. To my mind it's a very sweet song, but quite out of keeping with one of whom such dreadful things are told. So far as I have observed, he is quiet and well-behaved about here, feeding on worms mainly. Lacking evidence, I shall decline to believe the stories of cannibalism and malicious cruelty.

Out of all this medley of voices came a clear, joyous note which told me that robin redbreast was camping near. With my glass I saw him on the top branch of one of the trees, and then he was off again. I do not think he is as friendly as the eastern robin, though his notes proclaim him to be just the same saucy, vivacious fellow. One of the flock which came about was hurt in some way, probably colliding with a wire fence, and died in the yard, attended by a deeply concerned linnet. This gave me what I had waited for,—a chance to study him close by.

Since the above was written our bird visitors have been numerous Audubon's warbler was about the yard for a week or more before we identified him. He became friendly, even to the point of sitting on my clothes-line. During the heavy rains he made quite a determined effort to come through the window screen into the attractive shelter within. At that time he was alone, but I noticed quite a flock of them later.

The intermediate sparrows began to come the first week of February and soon took up their abode in a brush pile, where they found many choice tidbits,—from a sparrow's standpoint. After the rains the meadowlarks came back in great flocks. Side by side with Brewer's blackbirds they strut along, bobbing this way or that for food, very much after the manner of a chicken. Their song is a wonder and a never-ending joy to us. Sometimes a lone singer will perch on a branch near the house and will go through a series of trills, whistles and low gurgles, ending finally in a glorious burst of song.

About the middle of February for the first time this season, I heard the pileolated warbler's song. His sweet little call-note made me aware of his presence some weeks before this. The Arkansas goldfinch makes several visits daily to sip a few drops of water from the hydrant. Linnets are as numerous and as noisy as ever and very busy these days among the pepper grass which grows in abundance here. The bluebirds are very quiet. I hear only an occasional peep from them, though many have been in the yard. We called them the western bluebird since we heard no song. They are welcome visitors and make up for lack of song by the brilliant flash of color when they fly. The last week in January I heard such funny lisping sounds, entirely new to me. Upon close investigation with a glass I saw a flock of cedar waxwings in a near-by sycamore tree, much interested in their breakfast while all the time they kept up that lisping chatter. Many other birds have been seen but not clearly identified. I feel quite sure I saw a flock of American tit-larks; they had that teetering motion, as they looked about for food, described by Keeler in "Bird Notes Afield."

We are now getting ready to entertain hosts of bird visitors another season by setting out a strawberry patch and planting a variety of loganberries and blackberries, besides a mulberry tree, which will doubtless prove a great favorite later on. How many berries will be left for our own use remains to be seen. At the time of writing (March) meadowlarks, goldfinches, bluebirds and intermediate sparrows have quite deserted us, only a few coming back for a hurried call now and then, instead of the daily visit of last month.

Perhaps they have gone to the cool of the canyons or to richer feeding grounds. They disappeared so quietly and suddenly, somewhat after the manner of the Arabs, "who fold their tents and quietly steal away." Great flocks of robins and blackbirds fly over but scarcely deign to look this way. Some new birds have appeared, as always happens with changes of weather and seasons. This last week has brought several sweet singers to the grove; the foliage growing denser all the time gives them a feeling of more security.

Pileolated warblers and mockingbirds are our choice singers now. While the larks were in possession, the mocker hardly showed himself or at least he was so unusually quiet that I did not observe him. A song sparrow was heard here two or three times within the week. A new bird has given me no end of trouble in the way of neck-aches and disappointments. He always perches high and in such a way as to make it difficult to get his exact colors. The truly scientific (who no sooner sees a bird than he has it in hand to study every detail) can hardly appreciate the trials and vexations of a would-be bird student who does not resort to the gun.

However I'm satisfied that much can be learned without destroying life, as no doubt did Emerson think when he asked :

"Hast thou named all the birds without a gun?
Loved the wood-rose and left it on the stalk?"

* * *

Two Additions to the Land Birds of Santa Cruz County, and Additional Notes on Two Other Species.

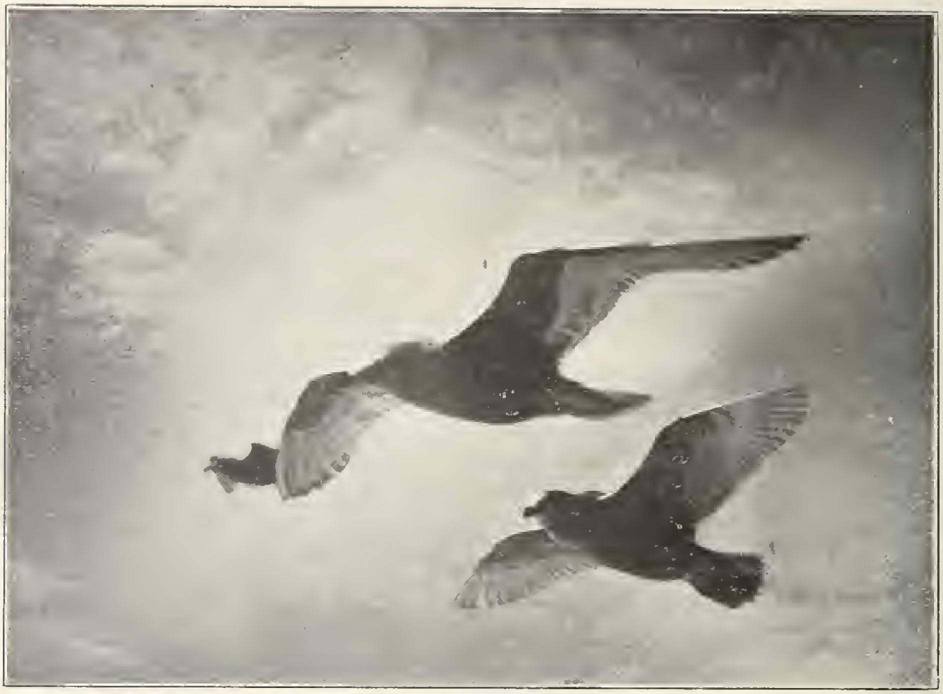
1. Nyctea nyctea. Snowy Owl. Some years ago while visiting at Santa Cruz the capture of a Snowy Owl was mentioned to me. The bird was shot as it flew across Wood's Lagoon, a slough near Santa Cruz. As the owl was only winged it was taken home alive by the lucky hunter,—James Francis, and placed in a large chicken coop. The broken wing-tip soon healed and in a short time the bird became remarkably gentle, taking food from the hand of its owner. Finally it became so tame that it would sit on his arm and shoulder. Mr. Francis had this owl in his possession for a number of years, but about two years ago it sickened and died. It was mounted and is now in the possession of Mr. Francis at Santa Cruz. The bird was very large and unusually white. Its sex is unknown to me, as also the exact date of capture, but as the duck season was open at the time, it must have been taken between Oct. 15 and Feb. 15, not very definite, but a record nevertheless.

2. Melanerpes torquatus. Lewis Woodpecker. On Dec. 26, 1900 while wheeling from Santa Cruz to Capitola I saw a Lewis Woodpecker in an apple tree near Moran's gulch about half way between the two towns. The bird was very unsuspicious and I was able to approach quite close. For some time it searched about in a listless manner, not caring apparently whether food was obtained or not. Finally, after I threw several clods at it, the woodpecker took flight, soon perching in another tree about 100 yards from the first one and bunching itself up as though very sleepy.

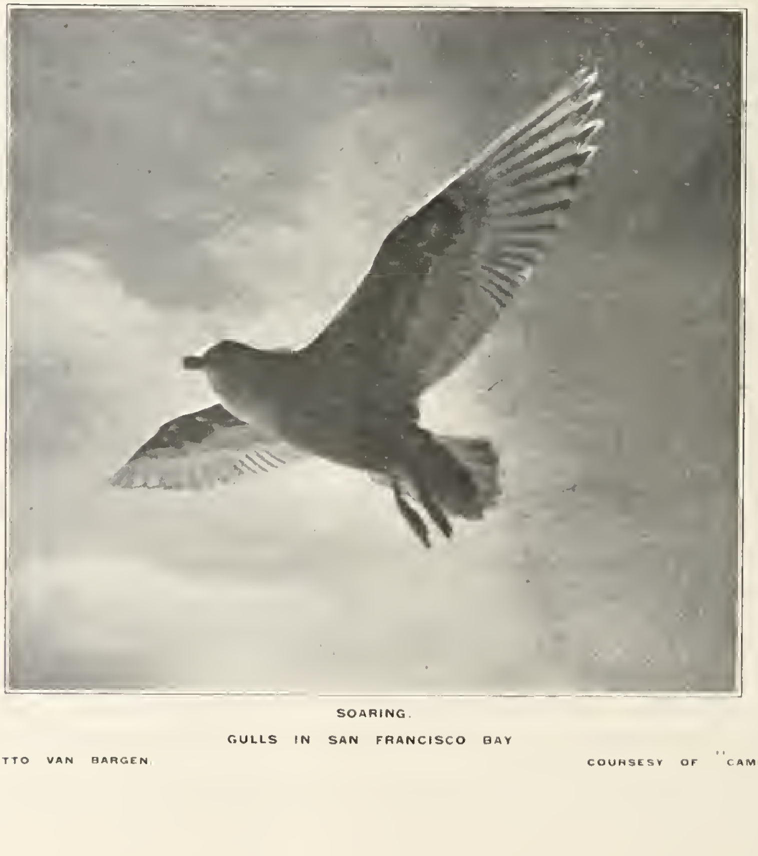
Falco peregrinus anatum. Duck Hawk. The Duck Hawk is spoken of by McGregor in his list as rare. I have met with it quite frequently and consider it not an uncommon bird. Several times at Moore's beach and also near the Santa Cruz lighthouse I have seen this falcon dash into flocks of Brewer Blackbirds and Western Meadowlarks, sometimes capturing two birds, one in each talon. Mr. A. G. Vrooman of Santa Cruz has quite an extensive series of eggs of *Falco p. anatum* which he has personally collected on the Santa Cruz coast.

Spinus pinus. Pine Siskin. In May 1896 Mr. A. N. Towne showed me a pair of siskins which he had taken from a eucalyptus. They were feeding high up in the smaller branches and were collected at one shot. *Spinus pinus* is probably a resident as the birds seem to have been taken several times in the breeding season. Eggs have been given me which tallied exactly with the printed descriptions of eggs of this species.

Chas. S. Thompson.
Stanford University, Cal.



SWIFT FLIGHT.



SOARING.

GULLS IN SAN FRANCISCO BAY

PHOTOS BY OTTO VAN BARGEN. COURSESY OF "CAMERA CRAFT"

Some Observations on Young Snowy Plover.

BY JNO. M. WILLARD, OAKLAND, CAL.

EARLY on the morning of July 1, 1901, I left Pescadero canyon where I was camping for the summer and with Mr W. H. Jackson of that place for a companion, drove some seventeen miles down the coast to try to find some breeding Snowy Plovers. Our road ran parallel to the surf, and not far from it, always within hearing or sight,—to within less than two miles of our destination, where it led down onto the beach itself and in some places could only be traveled with safety at high tide. Passing the narrower portions, we were soon on a broad, white beach, with the low bluffs on the one side and with the breakers on the other; and the beautiful white sand, two hundred yards wide, stretching a mile or more ahead of us. Here was the place for Plovers! Our horse did not like the breakers, but we succeeded in persuading him to proceed and in about fifteen minutes turned up into a ravine, half clogged with drift logs etc., that promised a shelter.

After making the horse comfortable we separated and started down the beach. The low bluff, mentioned before, here gave place to gullies and broken stretches of sand, the whole being backed by great dunes of clear drifting sand, unbroken by vegetation for the most part although there were belts and tongues of shrubs, most noticeable among which was *Lupinus arboreus*. These were the homes of numerous Zonotrichia. The beach was wide but its inner edge, and in places well into the dune-gullies, was covered with a numerous litter of drift,—the accumulation of years of storms. Among this drift I found five whale-skulls, half buried in the sand.

Before I was five minutes from our buggy I found that a pair of Plovers was circling me like a pair of shadows and uttering a low whistle from time to time. They ran most of the time, but now and then one would make a short flight. I was looking for a nest when I found what was to me more interesting than a set of eggs could be, a young not much bigger than my thumb, lying flat on the sand half under a stick of drift wood that was sticking up in the sand. I was not ten feet away from him yet he made no move so I retreated a few steps and sat down on the end of a log to await developements. For fifteen minutes I waited and hardly moved but as far as I could see he had not made any movement whatever. He was laid out perfectly flat, with his chin in front of him, and resting on the sand in a strained and unnatural position. By this time I concluded that he would wait for me to run and get my camera, so, after marking the spot, I started on a run for the wagon to get my instrument back before he accumulated enough courage to get up and run away. The deep sand made running hard, but I got back in five or six minutes to find him exactly as I had left him. His parents were a little nearer than before, but they retreated as I approached. I set up the camera—put my head under the cloth,—and slowly approached to within forty inches, focused it etc.,—and took his picture,—still no movement on his part. Then I wanted another picture and started to move a little closer, when up—my how he did run!

As I shouldered my camera I saw Jackson a couple of hundred yards down the beach waving his arms. He led me back a short distance to a spot marked by an upright stick, and said, "There they are!" But I had to study the ground carefully before I could see the set, so well did their protective coloration blend with the surroundings. Then I saw the set—three fresh eggs, lying with their points together in a slight hollow scooped out of the sand by the Plovers. Circling the eggs was a dainty wreath of slender bleached bones, chiefly from fishes. The spot chosen for the eggs was about two-hundred yards from the surf, on the level beach sand, near the center of the broad opening of one of the gullies in the sand-dunes. There was no distinguishing mark or object near the eggs, and nothing in the slightest to protect the set from destruction. The Plover was sitting on the nest when it was found and betrayed its presence by gliding off on the close approach of Mr. Jackson. She remained at a distance while we were in the neighborhood, but several hours later while in the vicinity I found a bird sitting on the empty nest. She ran off on our approach.

About twenty-five yards from this set we found two eggs, several feet apart and on an open flat stretch of sand a little nearer the breakers. I concluded that the wind had blown apart the eggs of an incomplete set.

Two more Snowy Plovers were found in this neighborhood, but I was unable to locate their nests or young; but late that afternoon while crossing the sand dunes I stirred up another bird. We had run across a hillock of chips of broken flint, intermixed with shells and a few bones; evidently an Indian mound. While examining this interesting spot I noticed a Plover feigning a broken wing. She would run to within eight or ten yards of me and dropping on one side, would hold the wing of the other up above her back, and crying piteously, would drag herself away. I sat down to await results and after a few minutes she stopped, panting violently, and apparently seriously wounded. Finding that I made no move she tried again and again, until she started within ten feet of me in her endeavor to attract attention and pursuit. But as night was rapidly approaching, and we were twenty miles from camp, I could not stop long enough to work out the object of her solicitude, but for the twenty minutes we were in the neighborhood her efforts to decoy us were unceasing.

I was especially interested in this incident. Without doubt the bird had either eggs or young in that immediate vicinity; yet that Indian mound was at least a quarter of a mile from the beach—several large hills of drifting sand intervening. Is it the habit of these plovers to nest so far from the surf?

Leaving this anxious bird, we pushed on to the beach, striking it some distance below the buggy. Before we had fairly reached the sands, Jackson called me to his side and pointed to the sand at his feet. There stretched out as if dead but with bright open eyes, lay a plover, even smaller than the first. It had sought no shelter but was trying to conceal its presence by stillness, even on the open sand, for there was no sheltering object near. We approached closer and closer until I could have touched the bird with my hand, but no movement on its part evinced life; so we left it, and were soon on the homeward road.

* * *

An Additional Specimen of Nyctale From Lake Tahoe.

THE young male mentioned in "Land Birds of the Pacific District" was captured in a dwelling on the evening of Sept. 21, 1899 at Tahoe City, where it may have been reared, as I had been told of small owls that came about the dwelling at night. My second specimen was taken in a dense alder thicket near McKinney's August 23, 1901. It was a young female; I shot it about 10 o'clock in the morning. Its stomach was full of fur and the bones of a small animal.

Possibly both individuals were migrants from the north, but I have long supposed that this owl was a summer resident of the east slope of the Sierras, though I have never heard one and have gone many times to what I thought were favorable parts of the forest in the Sierras with a hope of hearing it. Mr. Osgood in *North American Fauna No. 21* describes *Nyctala acadica scotæa* from Queen Charlotte Islands, which is probably quite, if not entirely, identical with specimens that have been taken in California, and also including Lichenstein's *Strix frontalis* which is grouped in Vol. 9 of *Pac. R. R. Reports* with *Nyctale albifrons.*

I hope *Nyctala* will be retained for the generic name of these owls and think no great violence will be done our code of nomenclature by retaining it. Dr. Coues somewhere suggested a statute of limitations whereby a name that had been in use about fifty years should continue in use,—a wise suggestion I think. *Ncytale* and *Nyctala* have done good service about that long; it seems to me that our greatest present want is stability of ornithological nomenclature.

L. Belding.

Stockton, Cal.

* * *

Mniotilta varia Recorded Again in California

As the result of an outing at Pacific Grove, Cal. I am enabled to again record the Black-and-White Warbler for California the specimen being a male in fall plumage. On Sept. 8, 1901 while driving out to Point Lobos, Monterey Co., at the Carmel River crossing my attention was attracted to a chickadee which I thought seemed to be chasing a chickadee of larger size. On collecting the bird I found it to be a Black-and-White Warbler (*Mniotilta varia*); making the third recorded specimen for California. The two skins I have taken measure as follows: No. 784, Coll, W, O. E.; wing, 2.11; tail, 2.00 inches, Farallone Island, May 28, 1887; No. 3047, Coll. W. O. E., wing, 2.10; tail, 1.14 inches, Monterey Co., Cal. Sept. 8, 1901.

There seems to be no perceptible difference between these specimens and those from the Atlantic Coast. An immature female is recorded in "Birds of the Pacific Slope of Los Angeles Co., Cal." by Grinnell, the specimen having been taken by H A. Gaylord on Oct. 2, 1895 in Arroyo Seco near Pasadena, Cal.

W. Otto Emerson.

Haywards, Cal., Oct. 30, 1901.

* * *

The American Redstart in Oregon.

While looking over the University of California collection of skins at Berkeley the past month for some records of the old Dr. Cooper collection, I noted a female American Redstart (*Setophaga ruticilla*) labelled "John Day River, Oregon, July 1, 1899," collected by Loye Miller, catalogue number 130. While being an Oregon take I consider it worthy of recording, as the date being late would indicate a nesting bird, and it may be found by some of the field-workers later on as occurring sparingly on the Pacific Slope, it being a summer resident of British Columbia.

W. Otto Emerson.

Haywards, Cal., Nov. 2, 1901.

* * *

Warbler Notes from Los Angeles, Cal.

Dendroica maculosa. On October 5, 1901 while watching a flock of about a dozen Lutescent and Pileolated warblers feeding in some willows, I saw among them what I took to be an immature Calaveras Warbler. I shot at and secured it and on picking the bird up was agreeably surprised at finding it to be a female Magnolia Warbler. I believe this is only the second thus far taken in this county. On Oct. 21, 1897 I secured one, also a female, (recorded in Grinnell's "List of Birds of the Pacific Slope of Los Angeles Co.") about a quarter of a mile from where I took this bird.

Helminthophila celata. For about six weeks, commencing with Sept. 1, Lutescent Warblers were quite abundant in the vicinity of Los Angeles. I carefully scrutinized the various flocks I saw in the hope of finding some Orange-crowned Warblers, and was rewarded by securing two specimens, a female on Sept. 28 and a male on Oct. 14. Mr. Grinnell writes me that he has a specimen, a male, taken at Pasadena Sept. 30, 1896. Aside from this I believe that I have about all the specimens heretofore taken in Los Angeles County, but nevertheless I believe that *Helminthophila celata* is a regular fall migrant in very limited numbers. I have taken it now in four different years (see CONDOR III, i), in fact in every year in which I have looked for it. The grey head and duller colors of *celata* usually serve easily to distinguish it from *H. c. lutescens*, in whose company I have generally found it.

H. S. SWARTH.

Los Angeles, Cal.

* * *

The Status of the Cedar Waxwing in California.

IN THE May CONDOR Mr. J. W. Mailliard makes an enquiry in regard to the summer and winter ranges of the Cedar Waxwing (*Ampelis cedrorum*). Since then I have jotted down whatever notes I could find on the subject, and these may be summarized somewhat as follows:

The Cedar-bird is principally if not exclusively a winter visitant to the State. I have been unable to find any definite breeding record for California; but a distribution map is pretty well dotted with winter stations from Red Bluff to San Diego, and from the Nevada line to the Coast, excepting the high mountain ranges. In the more northern and alpine sections it occurs chiefly as a spring and fall migrant. Within its winter habitat as above indicated, the species is found abundantly each year, though its local distribution is very irregular, being governed largely by food-supply. In certain localities waxwings may appear suddenly in large flocks, while points but a few miles distant are avoided altogether. Besides mulberries, mistle-toe berries and wild grapes, the berries of the pepper-tree, so abundantly planted for shade and beauty in Southern California, are especially sought after. These latter berries mature in largest quantities in the early spring months and it is then that the casual observer is most sure to notice the presence of the Cedar bird.

The Cedar Waxwing arrives within the State during the latter half of September. My earliest fall record at Palo Alto is September 13, 1901, when six were seen in the heart of town. At Pasadena, I saw them first on September 14, 1897, when three were noted. Fisher, in the "Ornithology of the Death Valley Expedition," records finding a flock of five at Three Rivers September 15, 1891. The species is not, however, noted in numbers until well along into October. From that month until the middle of May it is more or less numerous according to local food attractions. In the spring the species remains common until even after many of our strictly summer visitants are rearing young. This fact has led to the supposition that the waxwing itself should be found nesting. But according to my own observations, up to the time of their disappearance, the birds remain in flocks, without showing any intentions of pairing.

My latest spring observation for the species at Pasadena was May 17, 1895, when a small flock was still feeding in the pepper-trees on my home place. Belding, in his "Land Birds of the Pacific District," records the latest at San Diego, May 14, 1884; at Poway, May 18, a large flock; at San Jose, May 10, large flocks; and at Chico, May 15, 1884, a small flock. So that the usual time of arrival and departure of the species throughout the State is remarkably constant.

There are, however, four instances of the occurrence of waxwings long after the ordinary time of departure. As noted in "Birds of the Pacific Slope of Los Angeles County," two were seen at South Pasadena June 16, 1897; Fisher has recorded two at Lone Pine, Owens Valley, June 14, 1891; Belding has recorded it at Camp Seco, Calaveras County, on June 1; and, as elsewhere stated, I saw one on San Clemente Island, May 31, 1897. The latter was, without doubt, a lone straggler. The other three cases, however, might seem to indicate breeding localities. Numerous accidents may happen to maim individuals slightly, enough however to prevent extended migration flights. It seems to me probable that some such factor caused the delay in these cases. I am reminded of a casualty that often befalls the Cedar-birds at Pasadena. The telephone and electric wires are strung along the streets in close webs, sometimes right through the foliage of the shade trees. The waxwings fly in compact flocks in and out among the trees, and several individuals are not infrequently crippled or killed at one time by flying against the wires. At any rate, it remains that we have no record of the waxwing in California between June 16 and September 13.

The Cedar Waxwing appears to be a common summer bird northward along the Pacific Coast from Oregon to southern British Columbia. Johnson, in the "American Naturalist" for July, 1880, gives it as an abundant summer resident in the Willamette Valley, Oregon, where he says it nests extensively in the groves of small Douglas spruce. J. S. Bu cham tells me that he knew of a pair nesting near Salem. Anthony, in the "Auk" for April, 1886, states it to be common throughout the summer at Beaverton, Oregon; as recorded by Belding, it was first seen there on May 22 and was common by June 7. At Burrard Inlet, B C., it was first seen by Fannin on May 24, and was common by June 2; it is also stated to breed in the same locality. Cooper found it nesting at Fort Vancouver. The waxwing thus seems to be absent altogether during the winter from these northern regions, where it arrives quite late in the spring. In fact, the dates of departure from Southern California and arrival in Oregon and British Columbia, fit very neatly together. The waxwing in the eastern states is a notoriously late breeder, and the peculiarity seems to hold in the west also.

To sum up: The Cedar Waxwing on this coast is a migratory species, breeding in the Humid Transition Zone of Oregon, Washington and British Columbia, and wintering in the Upper and Lower Sonoran Zones of Southern and Lower California.

Joseph Grinnell.

Stanford University.

* * *

The Painted Redstart.

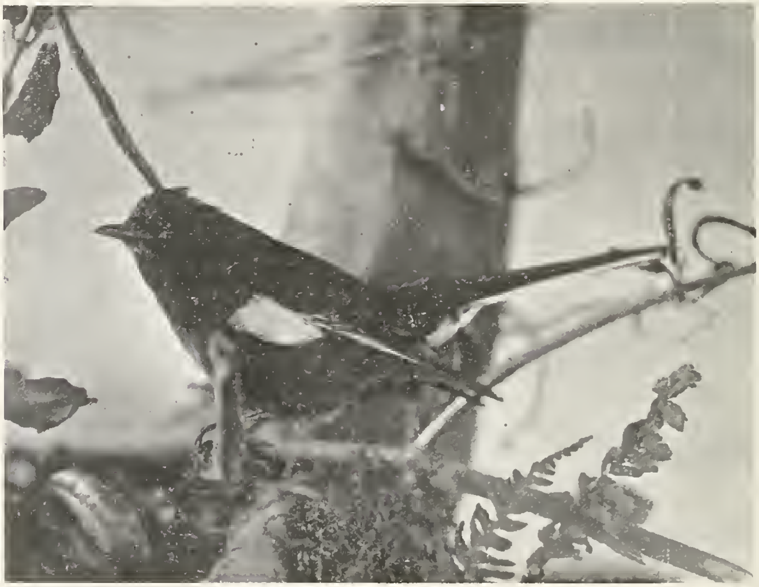
NEARLY twenty years have passed since Mr. Wm. Brewster gave in "The Auk" a description of the first nest and eggs found of the Painted Redstart (*Setophaga picta*). This nest was found in the Santa Rita Mountains which are thirty miles distant from Tucson. I well remember reading the account back in the early days of my collecting. Little did I think then that it would ever be my pleasure to follow in the footsteps of our earlier naturalists, in going over the same trails, camping on the same camp-sites and renewing old records, besides making a few new ones.

I have made three trips to the Huachuca Mountains and two into the Santa Ritas. Today I ran across the above description and very naturally my mind runs back over my own experiences with this beautiful bird. I first met the species in the Santa Rita Mountains, shooting two birds from among the tangled growth at the edge of a clear stream of water. The same year (1897) I found them in the Huachuca Mountains and took a nest and four eggs.

The nest was situated among the roots of a small oak tree growing near the foot of a hillside. The nest contained three fresh eggs and two days later it contained but one additional egg. The set was then taken as complete. I have since found six or seven nests of this species but only one from which I secured a set of eggs; the rest contained young. This nest, like all the others, was on a hillside, a trifle more roughly situated perhaps by being placed at the brink of a large rock some eight or ten feet high, above which was a small area of nearly level ground covered with a growth of grass.

Coming down the trail one morning after spending several hours after birds farther up the mountain, I saw a female Painted Redstart with nesting material in her beak. She was soon joined by her mate and I retreated a short distance to where the suspected spot might be closely watched. In a short time the male flew down and disappeared. This was repeated by both birds before I left the seclusion I sought among the maple leaves. I had the spot marked out with considerable certainty, and after reaching the top of the rock, I viewed at a distance of several feet a nicely lined entrance that led to a more nicely lined nest-chamber, neatly hidden beneath an overhanging bunch of grass. The nest was apparently finished but held no eggs.

Six days later I collected a set of three eggs from the nest. Two days had passed since the last egg had been deposited, giving sufficient evidence of the completion of the set. Two other nests over which I spent considerable time, were found to contain three and four young respectively. Both were built beneath overhanging bunches of grass. Another was found among the roots beneath a bank, the excavation having been made to develop a flow of water. This nest also contained young birds. The Painted Redstart is fully aware of its beauty for in no other species of North American birds have I seen such a display of vanity. Among the foliage it hops about with tail spread and drooping wings, twitching about with all the anxiety imaginable, that its black, white and carmine colors might be shown to the best advantage. The eggs are characteristic of those of the warbler family, being white with a circle of minute light reddish specks about the larger end. The plumages of the young are interesting, the first being black and white; later carmine pin-feathers begin to show and before the bird leaves for the south, full adult plumage has been attained.



PAINTED REDSTART (SETOPHAGA PICTA)
FROM MOUNTED SPECIMEN BY G. F. BRENINGER

GEO. F. BRENINGER.

Phoenix, Ariz.

PHOTO BY C. BARLOW

MT. TALLAC IN JUNE, FROM LITTLE TRUCKEE MEADOWS.

A List of the Land Birds of the Placerville--Lake Tahoe Stage Road.

CENTRAL SIERRA NEVADA MOUNTAINS, CAL.

BY CHESTER BARLOW

WITH SUPPLEMENTARY NOTES BY W. W. PRICE

THE region embraced in this title covers a magnificent stretch of forest in the central Sierra Nevada Mountains which, for natural beauty, is probably not surpassed elsewhere in the state. The general nature of the country is not of that extreme rugged type of which Yosemite Valley or the Kings River Canyon farther south in the mountain chain are examples, but attains its sublimity by gradual rises.

From the Sierran foothills gently-sloping ridges follow each other in billowy succession, becoming more abrupt as we ascend, until at Echo great mountainsides of granite crop out, marking the most rugged part of the route. The Lake Tahoe stage road has wound its way over the divide from the east and down the American River since pioneer days, yet it seems to have been but little frequented by ornithologists, and perhaps more systematic work has been done along this route during the past ten years than at all previous times.

The distance from Placerville to the summit of the mountains is approximately 50 miles and an additional 12 miles along the east slope brings one to Tallac on the southerly shore of Lake Tahoe. The road for the most part is excellent during the early summer months and travel by team is an enjoyable means of progression if one has the time at his disposal. To those less favored with time I would recommend going by rail to Placerville, thence by stage (running semi-weekly) to such point along the road as may be desired. If a more varied itinerary is desired one may continue on to Tallac, cross Lake Tahce by steamer and reach Truckee, whence the return home may be made by the Central Pacific Railroad.

DESCRIPTION OF ROUTE.

Along this route extending from the chaparral covered foothills to an approximate altitude of 8,000 feet the changes in bird life may be interetsingly followed as we ascend. At Placerville, located in the lower ridges of the range (altitude 1800 ft.) only a sprinkling of mountain species occur through the summer, but as we ascend the generality of valley birds decreases with the increased altitude, although a few pre-eminently valley forms—notably *Spizella socialis arizonæ*, *Vireo gilvus*, *Pipilo maculatus megalonyx* and *Zamelodia melanocephala* extend to the summit,—an altitude of 8,000 feet. It is an interesting problem as to why these particular birds of the valley should seek such altitudes, while the great majority of austral species decline with the beginning of the coniferous forests.

From Placerville, about which forests of yellow pine begin, the timber growth is for the most part heavy and so continues to the summit. The principal other coniferous trees through the forests are sugar pine, fir, cedar, Douglas spruce, hemlock, yew, juniper and tamarack, according to altitude. The principal deciduous tree of the region is the black oak which seems to constitute a favorite feeding-ground for the smaller birds, and which extends up to 5500 feet but not higher.

Along the route whole canyon-sides are frequently found grown up to manzanita and a tough, prickly brush, *Ceanothus cordulatus*, and the presence of these shrubs is usually indicative of a shallow, rocky soil. The deer-brush (*Ceanothus velutinus*), willowy in its nature and supporting fragrant white plumes, grows abundantly in places, and is replaced by willow thickets in the higher altitudes. This deer-brush is also a favorite feeding-ground of the numerous warblers and sparrows. Throughout the forest and in most open areas *Chamæbatia foliolosa* grows luxuriantly. It is a pungent, rose-like shrub, known locally as "mountain misery" and affords secure nesting sites for *Pipilo maculatus megalonyx*, *Junco hyemalis thurberi* and *Helminthophila rubricapilla gutturalis*.

PHOTO BY C. BARLOW.

TYPICAL PATCH OF CHAMÆBATIA FOLIOLOSA IN THE SIERRAS.

The grade from Placerville is gradual and the road for the most part passes through a beautiful timber-growth and approaches the American River at Riverton, whence it follows the river or its tributaries almost to the summit. After crossing the river, exposures of granite along the road are numerous and great patches and hillsides of *Ceanothus cordulatus*,—a sharply-spiked shrub,—are much in evidence. This brush is an abomination to the collector, but frequently one may walk on top of the matted growth for quite a distance, but it is a thing to be avoided when possible.

The most alluring portion of the Placerville-Tahoe road is encountered a few miles before reaching the summit, for here the mountain meadows begin, traversed by numerous brooks and bordered by a luxuriant growth of tamarack saplings.

Here bird life was abundant; chickadees and nuthatches were at work on the numerous stubs; thrushes were making the deep woods ring with their choicest melodies; robins, sapsuckers, woodpeckers, white-crowned and thick-billed sparrows, warblers and kinglets were all intensely busy, while the gaudy forms of tanagers appeared everywhere through the forest.

Much has been told of the panorama which unfolds itself to the traveler on the summit, and the view is certainly an inspiring one. The east slope drops down abruptly and some miles to the east rises the second range of the Sierras, capped by numerous snow-covered peaks of 10,000 or more feet altitude. Between these two ranges lies Lake Valley, through which courses the Little Truckee River. To the north is seen Lake Tahoe, which is reached by a 12-mile drive from the summit. The crest of the Sierras followed in either direction presents almost every phase of sublime and rugged mountain scenery. The east slope of the ridge has been bereft of most of its timber growth and presents a desolate appearance when compared with the heavily-timbered west slope. In Lake Valley the country takes on a Nevadan phase, with its sage-brush and sandy soil, and some of the desert birds, such as *Spizella breweri* here finds a congenial home.

To the ornithologist who can afford time to desert the stage road for a few days,

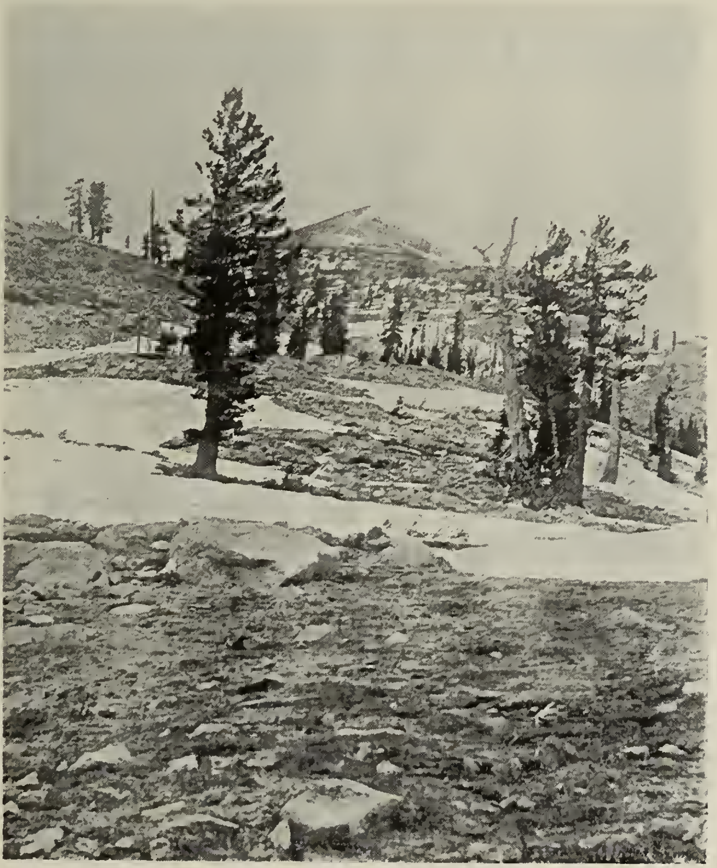


PHOTO BY C. BARLOW.

AT 9,000 FEET ALTITUDE ON PYRAMID PEAK.

I would suggest a delightful side-trip and a climb to the summit of Pyramid Peak. To accomplish this a side-road is followed at Georgetown Junction (between Slippery Ford and Echo) which leads to the summit of Peavine Ridge. This ridge runs easterly to the main mountain chain, and supports a fine growth of timber and many glacial meadows, in which birds abound. Several mountain dairies, deserted excepting during the summer months, may be relied upon to furnish shelter as the nights are much too cold for comfortable out-door sleeping. A party of four, including myself, camped at the western base of Pyramid Peak in 1900 and found the country all too interesting for the brief inspection we could give it. The ascent of Pyramid Peak (altitude 10,020 feet) is well worth the climb, and here the Clarke nutcracker (*Nucifraga columbiana*), the gray-crowned leucosticte (*Leucosticte tephrocotis*) and other species of the higher altitudes are met in their summer home. A panoramic view from the summit of Pyramid Peak will ever remain fresh in the writer's memory; far away to the south extended a solidly snow-capped ridge as far as the eye could see; close at hand great snow-banks reached down the steep eastern slope of Pyramid a thousand feet in unbroken whiteness, while far below beautiful mountain lakes and the dark-green forest combined to form a pleasing setting for these lofty mountain peaks.

GENERAL CONSIDERATION OF THE REGION AND ITS ZONES.

In traversing the region from Placerville to the summit one is impressed with the abundance of warblers and sparrows,—indeed, in numbers, they seem to outrank all the other species combined. Scarcely a patch of deer-brush is passed that does not resound with the bold, liquid song of dozens of thick-billed sparrows, while each clearing has its quota of warblers. Each species of warbler seems to show a preference for some particular type of country. For instance, I have found Audubon warbler colonizing to quite an extent in areas covered by a dense growth of cedar saplings. The Calaveras and Tolmie warblers seem always to prefer the seclusion of brushy hillsides grown up to *Ceanothus velutinus* or *C. cordulatus*, while the black-throated gray warbler haunts the open ridges where the deer-brush has attained a height of eight or ten feet, affording a feeding-ground and frequently nesting sites. The hermit warbler shows a decided preference for the clear, tall timber, where the males, at least, usually keep well up in the trees.

The brushy hillsides afford seclusion for the numerous Fringillidæ, including, Passerella, Pipilo, Spizella, Zonotrichia and Oreospiza, and the entire region can conservatively claim a generous population of birds. In this respect I should judge it is more favored than either the country to the north or south, from which have come reports of the scarcity of mountain bird-life. Judging from a casual view of the country contiguous to the Central Pacific Railroad I should consider the Placerville-Tahoe region more conducive to bird life than the former, but this is merely a surmise on my part.

In so brief a consideration of the life zones of this region it is impossible to give more than a mere outline of the general limits of each zone without making an extended study of this feature, which the writer has not thus far done. Generally considered, the Upper Sonoran zone extends through the region of the digger pine and blue oak up to within a few miles of Placerville, and is marked by the presence of such birds as *Aphelocoma californica*, *Chamæa fasciata henshawi* and *Pica nuttalli*.

Placerville with its altitude of 1,800 feet may be considered the lower limit of the Transition zone, which extends up to about 5,000 feet on the stage road to the vicinity of Georgetown Junction where the black oak gives out. In this belt a generous sprinkling of Lower Sonoran birds is found, including *Zamelodia melanocephala*, *Dendroica æstiva* and *Pipilo maculatus megalonyx*, while many birds of the Canadian zone extend down as low as 3,700 feet and are found breeding abundantly. *Sphyrapicus ruber*, *Dryobates villosus hyloscopus* and *Cyanocitta stelleri frontalis* may be considered typical of Transition, while the more typical forest trees of this belt are the yellow pine (*Pinus ponderosa*), sugar pine (*Pinus lambertiana*), incense cedar (*Libocedrus decurrens*) and Douglas spruce (*Pseudotsuga mucronata*).

ON THE SUMMIT OF PYRAMID PEAK.

The Canadian zone along the route may be included in the region lying between 5,000 feet altitude and the summit with its average elevation of 7,500 feet, irrespective of its numerous peaks. Here we find *Sphyrapicus thyroideus*, *Dendragapus obscurus fuliginosus* and *Coccothraustes vespertinus montanus*, and such trees as the lodgepole pine (*Pinus murryana*), red fir (*Abies magnifica*), silver pine (*Pinus monticola*) and juniper (*Juniperus occidentalis*). The Hudsonian zone proper is encountered from about 8,000 feet upward on the slopes of the higher peaks, typical birds being *Nucifraga columbiana*, *Zonotrichia leucophrys*, *Spinus pinus* and *Regulus calendula*. This region is characterized by its hemlock forests. The Alpine zone on Pyramid and other peaks is a narrow belt above timber-line and the only bird observed was *Leucosticte tephrocotis*.

RECENT WORK IN THE REGION.

This brief survey is intended to cover only comparatively recent work in the region under consideration. Mr. W. W. Price made his first investigations in the summer of 1893 and has since devoted three months of each year to the exploration of the country contiguous to the stage road. His twenty-seven month's experience has made him familiar with even the more remote portions of the region, so that the addition of his notes to the present list insures its reasonable completeness.

During the summer of 1896 Messrs. Wilfred H. Osgood and R. H. Beck made an extended collecting trip from Placerville to Tallac and several particularly interesting sets of eggs (including the type se s of *Dendroica occidentalis* and *Cocco-*

PHOTO BY C. BARLOW

COUNTRY ABOUT ECHO, LOOKING TOWARD THE SUMMIT.

thraustes vespertinus montanus) resulted from the trip. At that time I spent several days collecting with them at Fyffe.

In 1897 Mr. Beck made a hasty trip as far as the summit, while Henry W. Carriger and myself confined our ten days' operations to Fyffe, where L. E. Taylor acted as host. Mr. Taylor has collected a portion of each summer since 1896, and, owing to his hospitality, Fyffe has grown to be the Mecca of numerous ornithologists whose time precludes their going farther into the region. In 1898 Mr. Price went over the route as usual while I spent ten days with Mr. Taylor, at which time the second known set of hermit warbler was collected. In June, 1899, Messrs. Carriger, John M. Welch and myself spent a week at Fyffe engaged in general work. In 1900 Wm. L. Atkinson, Mr. Taylor and I collected at Fyffe and as far east as Pyramid Peak, which was climbed on June 10. During the past season (1901) Mr. Taylor and I traversed the entire length of the road to Tallac devoting about two weeks to the trip. Mr. Taylor was later stationed at Meyer's Station and Glen Alpine Springs where he secured some interesting notes.

I am especially indebted to Mr. W. W. Price for his supplementary notes to my list as well as for cordial co-operation. He adds a material number of species to the list, a fact due doubtless to his extensive study of the region. Messrs. Wilfred H. Osgood, R. H. Beck and Forrest Hanford have kindly furnished me with data concerning the occurrence of various species in the region, while Mr. Chas. A. Swisler has favored me with a local list from Placerville where he has resided for years. This has been the means of adding eight species to the present list.

I would take this opportunity of recommending ornithologists to Mr. L. H. Pratt of the Sugar Loaf Hotel at Slippery Ford, whose genial manner and general knowledge of the birds of his locality render him a model host of a model hostelry. I am grateful to Mr. L. E. Taylor for recent collections of birds in Lake Valley and at Glen Alpine Springs, as also for numerous courtesies extended on outings during the past six years, all of which have enabled me to better understand the region.

Thanks are due Mr. Walter K. Fisher for suggestions in outlining the life zones, and to Mr. Joseph Grinnell for his careful comparison of various specimens of birds, whose subspecific rank he determined.

DIVISION OF ROUTE INTO SECTIONS, WITH ALTITUDES.

For convenience, and to divide the stage road into sections, I have prepared a list of the stage stations with their elevations, and the distance of each from Placerville. Such stations as receive and dispatch mail I have marked "P. O." It is hoped that by consulting this schedule and studying the zone in which each station is located, that ornithologists desiring to travel through the region may be enabled to map their route with a reasonable knowledge of the birds to be met with in each locality. The stations are given in their order from Placerville and in the following list the station nearest to the point of capture has been used to designate the locality.

PLACERVILLE, altitude 1800 feet

SMITH'S FLAT (P. O.) Three miles from Placerville. Altitude 2200 feet.

SIX-MILE HOUSE, Six miles from Placerville, Altitude 3000 feet.

FYFFE (P. O.) 12 miles from Placerville. Altitude 3700 feet.

PACIFIC (P. O.) 17 miles from Placerville. Altitude 3400 feet.

RIVERTON (River crossing). 22 miles from Placerville. Altitude, 3300 feet.

SLIPPERY FORD (P. O.) Known also as Sugar Loaf. 33 miles from Placerville. Altitude 4000 feet.

ECHO (P. O.) 44 miles from Placerville. Altitude 5700 feet.

PHILLIPS STATION. 48 miles from Placerville. Altitude 6900 feet.

SUMMIT. 50 miles from Placerville. Altitude 7600 feet.

MEYERS STATION. 55 miles from Placerville. Altitude 6400 feet.

TALLAC (P. O.) 62 miles from Placerville. Altitude 6200 feet.

In conclusion I would mention that the inspiration of this list has been a desire to bring this region to the better knowledge of ornithologists, especially those Californians who enjoy ornithological outings to new fields. In presenting the list I am aware that it is probably far from complete, especially in austral types. The country about Smith's Flat partakes of the nature of the lower foothills, there being numerous small valleys timbered with white oak, and as no systematic work has been done here it is reasonable to suppose that a number of valley species occur which have not been recorded.

The present list, with several exceptions, deals largely with the birds which summer in the Sierras. This leaves unrecorded many of the winter visitants which must frequent the region, and also such migrants as travel through the pass each spring and fall. It is hoped to record these species in an additional list at some future time, since Mr. L. E. Taylor of Fyffe has consented to watch the bird movements during the present fall and winter. No attempt has been made to list the water birds, although a very interesting list could doubtless be gathered from the various mountain lakes during the fall, winter and spring.

Finally, the present paper is principally a compilation of nesting notes which have been gleaned from several years' outings in this portion of the Sierras It has been prompted by a desire to draw more of the ornithologists of California to this great natural aviary, not necessarily to engage in active collecting, but to learn of and appreciate its varied and interesting bird life.

Mr. Lyman Belding, whose long and continuous observations in the Sierra Nevada Mountains have given him a rare knowledge of its fauna, and whose writings breathe always of the pine-woods, has advised every bird lover to visit this great mountain region if he has not already done so. I can scarcely hope to add force to his suggestion. Here a variety of natural features combine to form what one sojourner has termed "the grandest woodland in all the world." Here, toward evening, a flood of melody leads us to the shady haunts of the Big Tree thrush on the border of some mountain meadow; here innumerable bird songs, the rush of the mountain torrent, the soft cadence of the pines and above all the pure mountain air impress us profoundly with the wild beauty and perfection of Nature's handiwork.

LIST OF SPECIES.

Oreortyx pictus plumiferus. Plumed Quail. This splendid quail is found commonly from about 2000 feet upward to the summit and is abundant in Lake Valley. Its shrill call-note can be heard almost anywhere through the woods, and particularly on the hillsides; the note is quite easily imitated and if persisted in will draw the bird close to the observer. At Fyffe the plumed quail begins nesting the last of May or early in June, and all nests observed were built in the "mountain misery" which here attains a height of from eight to ten inches. On June 7, 1899 Mr. Carriger and I collected two sets of eggs at Fyffe. The first nest was built at the base of a large cedar tree, being well concealed by *Chamæbatia* and contained ten eggs, incubation about one-half advanced. Although disturbed repeatedly, the female bird returned to the nest with great persistence. The nest was photographed and its location is shown in the accompanying illustration. On the same day while walking through a patch of "mountain misery" a quail flushed from a set of eleven eggs. This was subsequently collected with the nest, which was composed of the leaves and stems of *Chamæbatia* and a lining of feathers. The eggs were about one-half incubated and formed two layers in the nest when collected. On June 10 1899 Mr. Carriger collected a nest and ten eggs near the Fourteen-mile House, incubation well along. Mr. L. E. Taylor discovered a nest at about 5,000 feet altitude on June 16, built on a shelf of rock near the road. A cavity had been hollowed out in the sand and lined with leaves; this held six fresh eggs. I should advise collecting nests with sets when possible, for they add immensely to the interest and beauty of the eggs. The plumed quail were observed coming out into the road about dusk.

[On Mt. Tallac and on the higher slopes of Pyramid Peak, young just hatched have been observed as late as the 15th of August. By the first of September the quail are restless and are beginning their peculiar vertical migration to the west slope of the mountains. Sometimes four to six adults with their young will form a covey of ten to thirty individuals and pursue their way, almost wholly "on foot" along the ridges to a more congenial winter climate. By Oct. 1 the quail have almost abandoned the elevations above 5000 feet. In the fall the woodland is full of the disconsolate "peeps" and whistling call notes of the young who have

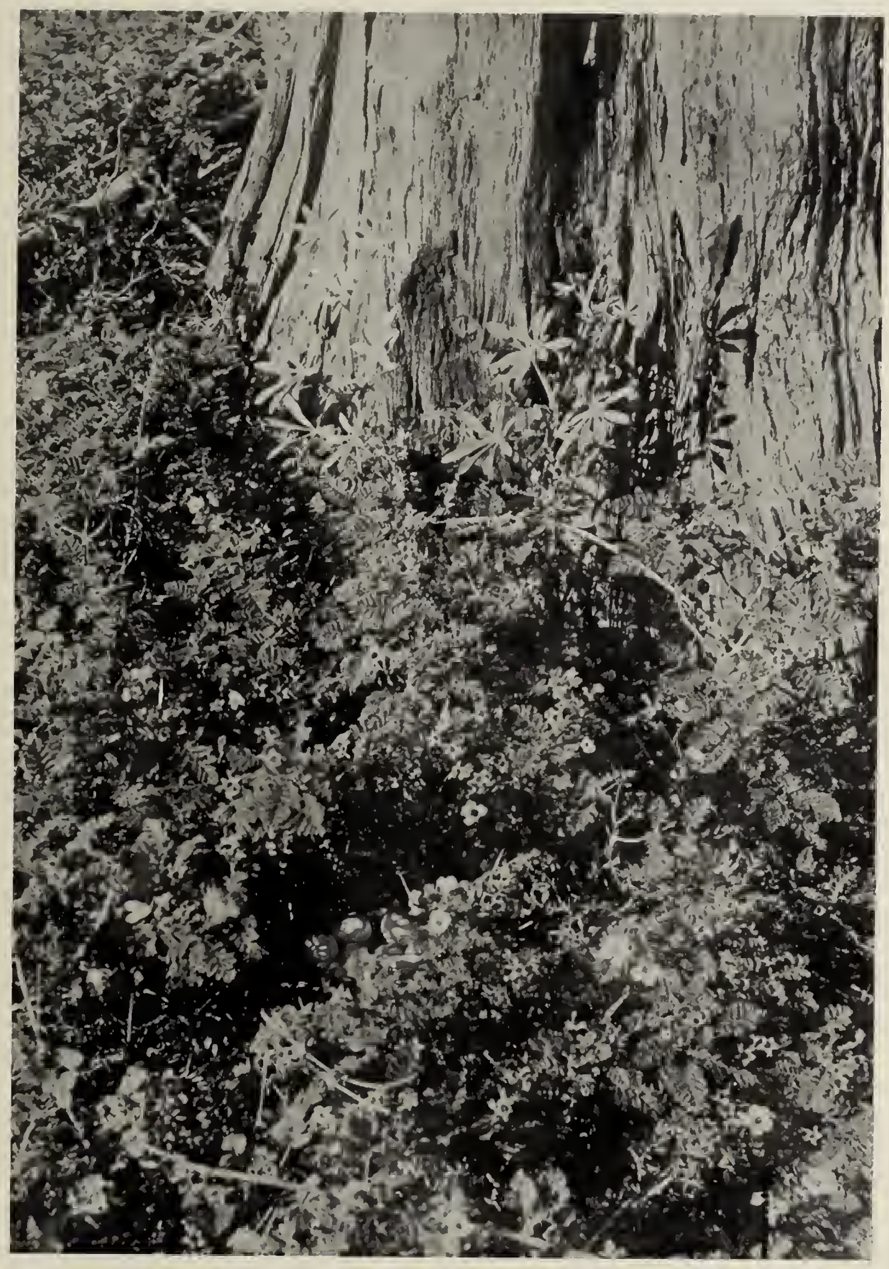


PHOTO BY C. BARLOW.

NEST AND EGGS OF PLUMED QUAIL IN "MOUNTAIN MISERY."

strayed from their coveys. In the early spring and summer the quail begin their upward journey, not in flocks, but usually in pairs or singly, ascending as fast as the snow melts from the ground. At this mating season their rich clear whistle is continually heard, though at no time during the year are they quiet. I observed several pair near Slippery Ford on the 20th of April, 1897, though snow still covered the ground in many places.—W. W. P.]

Lophortyx californicus vallicolus. Valley Quail. Observed in the region of Smith Flat and probably extends up as far as Fyffe. Not nearly as common as the preceding species.

[Common about the Six-mile House and as far as the Ten-mile House. Young, a few days old, were observed at the Six-mile House June 26, 1896.—W. W. P.]

Dendragapus obscurus fuliginosus. Sooty Grouse. Occurs from the Fourteen-mile House to the summit, but apparently not common at any point. On Plum Creek Mr. Taylor and I heard them "drumming" in the tall spruce on the hillsides. On June 14, 1901 we had just crossed the summit and made a turn in the road when a sooty grouse was observed crouched about 50 feet away against the bank. One shot from the auxiliary barrel did not disturb it; the second caused it to fly down the hill into a tall tamarack, where it was subsequently found sitting in plain view on a bare limb, from which it was collected.

[I have noted this species from the Twelve-mile House to 9500 feet on Pyramid Peak and Mt. Tallac. Unlike the plumed quail the grouse does not migrate to the lower levels, but remains regardless of the depth of snow, feeding on the conifers. April 21, 1897, while passing on snowshoes on the divide above Slippery Ford, I surprised a large flock where the snow was fully 15 feet on the level. The crop of a bird shot was completely filled with the young leaves of the white fir. About Glen Alpine, the first young were observed as early as the middle of June. On June 7, 1900 a set of seven eggs well advanced in incubation was found by one of the employes at Glen Alpine. It was placed in a hole under a fallen tree. among ferns. All through the setting time, and often much later, the males are heard drumming. Later they go to the most elevated regions, spending most of their time in the pines and hemlocks, alighting on the ground only long enough to feed on the blossoms of lupine, columbine, and Indian paint brush (*Castilleja*), together with a small amount of insect food. When the young are hatched the mother grouse is notably fearless in decoying the intruder.—W. W. P]

Columba fasciata. Band-tailed Pigeon. On June 6, 1899 Mr. Welch and I observed a flock of these pigeons in the pines near Fyffe. This is my only record of their occurrence.

[Common at many places in the mountains, to at least 6500 feet, their rarity or abundance depending on the food supply, which is chiefly the berries of the manzanita and scrub oak. I observed a single individual at Glen Alpine, August 15, 1900.—W. W. P.]

Zenaidura macroura. Mourning Dove. This species is abundant on the plains and was observed commonly about Smith Flat. It is doubtful if it is a common resident of the pine region. On June 11, 1898 I found a nest containing two fresh eggs, placed in a crotch of a black oak eight feet from the ground. The nest was composed wholly of pine needles laid together in a depression and contained two fresh eggs.

[Common about Pacific House in freshly harvested grain fields June 28, 1897 and a single pair was observed at Slippery Ford a few days later. They are rare about Lake Tahoe, but several were shot at the north end of the lake, in dry meadows Aug. 1, 1900.—W. W. P.]

Gymnogyps californianus. California Vulture. This species is recorded on the authority of Mr. Jesse Millikan who mentions the capture of a specimen on the South Fork of the American River in the fall of 1854. (*cf.* THE CONDOR II, p 12.)

Cathartes aura. Turkey Vulture. Observed occasionally circling about the canyons at Fyffe, especially at a spot where a forest fire had destroyed a large growth of timber.

Accipiter velox. Sharp-shinned Hawk. Observed several times near Fyffe flying about in and above the fir timber, where it undoubtedly nests.

[Common about Pyramid Peak, especially in the late summer when a migration seems to be in progress. Have seen it frequently each year usually in dense fir timber, but have never found its nest or collected the young.—W. W. P.]

Accipiter cooperi. Cooper Hawk. On June 10, 1899 Mr. Carriger and I observed a hawk which we identified as this species eating a bird in a grove of pines five miles from Placerville.

[In the summer of 1897, about July 10, on Silver Creek at the base of Pyramid Peak I collected four young just able to fly. The nest was not found, but was undoubtedly in the dense fir timber in the immediate vicinity. At Glen Alpine this species is seen almost any day about Lily Lake, where dense thickets of fir and aspen make a favorite retreat.—W. W. P.]

Accipiter atricapillus striatulus. Western Goshawk.

[A pair of these birds had their nest somewhere is the dense timber on Silver Creek on the west of Pyramid Peak, in June and July 1897. I saw the pair several times near enough for positive identification, but they were always extremely wary, and when disturbed from their retreat would circle about with wild cries. In July 1898 presumably the same pair were observed, and although we searched the woods diligently could not find the nest or the young. I am reasonably positive I saw a goshawk in the heavy pine and aspen timber at Glen Alpine, July 3, 1901.—W. W. P.]

Buteo borealis calurus. Western Redtail. This species was noted occasionally at Fyffe and once near Georgetown Junction, but will probably be found to be fairly common upon investigation. One bird was seen perched on a tall burnt pine in a district which had previously been swept by a forest fire, but it was very wary, changing its position quickly when one approached. The other was also in an open district and allowed me to approach to the base of the giant pine on which it had settled. This species doubtless nests in the large conifers, most of which would offer perfect security from human molestation.

[Common everywhere in the woods. I have noted it almost every day about my camps on Silver Creek and on Mt. Tallac. Several specimens have been shot each season.—W. W. P.]

Aquila chrysaetos. Golden Eagle. We observed a single bird flying about the summit of Pyramid Peak in 1900. Mr. Pratt of the Sugar Loaf Hotel showed me a pair of wings of this species which he had saved from a bird shot in the fall of 1900. It is said to nest regularly in the high, rugged cliffs at Echo.

[A pair of these birds have their nest on the craggy western face of Pyramid. Peak. The nest is on a ledge about 500 feet from the summit and inaccessible On the night of July 27, 1899, which I spent on the summit, a pair of eagles flew close to our campfire as if attracted by the unusual sight. They passed several times within a few feet of us. Eagles are seen almost every day at Glen Alpine, and they nest both on the cliff in the canyon and on the cliffs on Mt. Tallac.—W. W. P.]

Falco sparverius deserticolus. Desert Sparrow Hawk. Met with quite frequently in the higher pine forests. One was shot at Slippery Ford on June 9 from the top of a tall fir tree. The bird lodged in the tree and necessitated a hard climb to secure it. This specimen, a male, was of a distinctly lighter form than the coast birds and was pronounced a good example of *deserticolus* by Mr. Wilfred H. Osgood who kindly compared it with specimens in the Biological Survey. The species was observed at 6,000 feet altitude on Peavine ridge.

[Collected on the upper slopes of both Pyramid Peak and Mt. Tallac. In July 5, 1897, a nest was found in a hole in a blasted pine at 9000 feet on the south slope of Pyramid Peak. From the actions of the birds the nest probably contained young.—W. W. P.]

Pandion haliæetus carolinensis. American Osprey.

[Observed in late June 1896 at Riverton, where a single individual was seen flying up the American River. It was so close to us that identity is practically positive. No other hawk has the large amount of white in its plumage. One of the ditch tenders told me that a "fish hawk" came up the river frequently. On April 19 1897 near Slippery Ford, I observed this hawk a second time. It was perched on a tree overhanging the river. On my approach it flew to another resting-place.—W. W. P.]

Nyctala acadica. Saw-whet Owl. [One was shot by Mr. A. S. Bunnell at my camp at Glen Alpine in July 1898. It was the only one seen.—W. W. P.]

Bubo virginianus saturatus. Dusky Horned Owl. One shot in July or August, 1897 by Mr. L. E. Taylor at Fyffe was probably a resident bird and was referred to this race by Mr. L. M. Loomis who kindly examined the specimen for me. The skin is now in the Academy collection.

[I have heard the "hoot" of the horned owl several times at high elevations on Mt. Tallac, but have never succeeded in collecting the bird.—W. W. P.]

Speotyto cunicularia hypogæa. Burrowing Owl. Recorded from near Latrobe by Mr. C. A. Swisler. Nests commonly on the plains farther west.

Glaucidium gnoma. Pygmy Owl. [Three were shot at Glen Alpine, August 10, 1900. They were observed flying in the day time. One was an adult female, the other two being young of the year.—W. W. P.]

Ceryle alcyon. Belted Kingfisher. Occurs throughout the length of the American River. Mr. Taylor sent me a male, collected at Glen Alpine Springs on Sept. 21, 1901.

Dryobates villosus hyloscopus. Cabanis Woodpecker. A common species at Fyffe where it nests well up in the pines. Observed also at Slippery Ford on June 13, 1901. Mr. Taylor secured two specimens at Fallen Leaf Lake on Sept. 2, 1901.

Dryobates pubescens gairdneri. Gairdner Woodpecker. On June 7, 1899 Mr. Carriger observed a single bird of this species in the burnt district near Fyffe.

Xenopicus albolarvatus. White-headed Woodpecker. A common species at Fyffe and apparently up to the summit, usually quiet in its habits. The favorite nesting sites are low stubs of burnt trees, in which the newly-drilled holes show conspicuously. June 15, 1897 a nest was found twelve feet up in a burnt stub containing young about to fly. The young were of a dull yellowish plumage on the white parts but otherwise showing the markings of the adult birds. In 1898 at Fyffe a pair of white-headed woodpeckers had a nest containing young in a stub near the house. The nest was six feet from the ground and as the young grew larger one could almost always be observed at the entrance hole. In the top of the same stub a pair of western bluebirds had a nest and they improved every opportunity to attack the female woodpecker when she came to feed her young. However both species reared their young successfully. The white-headed woodpecker is one of the quaintest-looking and most interesting birds of the region.

[Common in Lake Valley and about Fallen Leaf Lake, as well as everywhere in the range of the yellow pine. I have never noted it above 7000 feet. —W. W. P.]

Picoides arcticus. Alpine Three-toed Woodpecker. [A pair was collected on Silver Creek, west of Pyramid Peak, in August 1896. The same month a young bird was shot at 9,000 feet on Pyramid Peak. In July 1898 two young were shot at the head of Glen Alpine gorge. They were feeding in a grove of alpine hemlock.—W. W. P.]

Sphyrapicus ruber. Red-breasted Sapsucker. A common Transition species. On June 11, 1897 Mr. Carriger and I found a nest 40 feet up in a dead, barkless pine in a ravine at Fyffe. It contained young whose "screeping" notes could be heard whenever the parents alighted on the stub. The old birds were not annoyed by our presence, going promptly to the cavity with their supply of food. I have observed the species up as far as Echo.

Sphyrapicus thyroideus. Williamson Sapsucker. On June 9, 1900 Mr. Atkinson and I observed a female drilling its nesting-hole in a red fir on the meadow at the base of Pyramid Peak. I shot a female at 7,200 feet altitude on June 14, 1901 and do not think it is found below Echo. Mr. Taylor collected an immature female at Cascade Lake Aug. 8.

Ceophlœus pileatus abieticola. Northern Pileated Woodpecker. Not uncommon. I observed several in the tall dead pines but all were extremely wary. When I first heard it drumming at Fyffe early one morning its "tapping" was a revelation and could be heard a great distance in the woods. Mr. Beck collected a female at Fyffe and Mr. Price's assistant found a nest containing young on June June 13, 1897. Mr. Taylor collected a male at Gilmore Springs near Tallac Sept. 2, 1901.

Melanerpes formicivorus bairdi. California Woodpecker. Recorded from near Placerville by Mr. C. A. Swisler.

Melanerpes torquatus. Lewis Woodpecker. Personally I have not observed this woodpecker on the west slope of the range, though it would be expected to occur. Mr. Beck found it common and breeding about Bijou on Lake Tahoe in the summer of 1896, and Mr. Taylor collected two immature females at Grass Lake near Glen Alpine on Sept. 20, 1901.

Colaptes cafer collaris. Red-shafted Flicker. Common in the wooded districts from the lower foot hills up to at least 9,000 feet. One specimen which I shot was smeared with pitch from the pines and of a dark color, due doubtless to its contact with burnt trees. While climbing Pyramid Peak on June 10, 1900 Mr. Atkinson found a nest of this flicker in a stub of a white-bark pine at about 9,200 feet altitude. The nest was ten feet up and contained six eggs, almost fresh. The parent bird was extremely wild and did not seem to venture near the stub during our stay on the peak.

Phalænoptilus nuttalli californicus. Dusky Poor-will. One heard at Fyffe on the night of June 19, 1896. We were camped on the edge of a clearing and had just retired, the moon brilliantly lighting the open space, when the call of a poor-will came to us from across the clearing in the shadow. It was repeated several times when the bird departed. Mr. Taylor collected a female at Meyer's Station in Lake Valley on Sept. 2, 1901.

Chordeiles virginianus. Nighthawk. Not observed on the west slope from

Placerville to the summit, owing probably to a lack of suitable breeding grounds. In Lake Valley at Meyer's Station it was common, doubtless nesting in the sage brush which there abounds. Mr. Taylor writes me that on the evening of August 11 he noted flocks of this species congregated in and about the willow sand that they were thereafter uncommon indicating that the principal migration took place on that date. A female collected by Mr. Taylor at Meyer's Station on Sept. 4 shows very dark coloration, as do other specimens from the Sierras, and is evidently not referable to *Chordeiles v. henryi.* It seems probable that the Sierra nighthawk may prove separable into a new race but in the absence of definite data the present notes may be considered to apply to *Chordeiles virginianus.*

[Common in suitable places to the summit of Pyramid Peak and Mt. Tallac. Very abundant on the lakes about Glen Alpine, where they can be seen at all times. In late July a nest with two eggs was found on bare rock near the shore of Suzy Lake. The night I spent on Pyramid Peak, nighthawks were continually flying about the campfire. In the fall they congregate in large flocks preparatory to the migration.—W. W. P.]

Aeronautes melanoleucus. White-throated Swift. On June 7, 1899 Mr. Carriger and I observed a swift circling high in air over one of the canyons at Fyffe and referred it to this species.

Trochilus alexandri. Black-chinned Hummingbird. On July 15, 1900 Mr. L. E. Taylor found a hummingbird's nest at Fyffe containing two eggs and collected the female parent. The skin was subsequently almost destroyed but from the fragments Mr. C. W. Richmond of the National Museum referred it to this species. The nest was placed five feet from the ground in a pear tree in the orchard and and was composed of light colored plant material and mullein down.

Calypte anna. Anna Hummingbird.

[A single specimen, a female, was shot on Silver Creek near Pyramid Peak, in July 1896. It was evidently a straggler.—W. W. P.]

Selasphorus rufus. Rufous Hummingbird. [Abundant in the Sierras above 6000 feet. Noted every day at my camp on Silver Creek, where four or five nests were taken usually placed on small limbs of the tamarack pine. One was on a twig of *Lonicera* a few inches above running water. This nest was first observed July 1, 1895, when it contained one egg. This hummingbird was often noted at Glen Alpine, where it fed largely on the nectar of the California fuchsia.—W. W. P.]

Stellula calliope. Calliope Hummingbird. Mr. Beck collected several of these small hummingbirds four miles west of Slippery Ford, while they were flying about blossoming shrubs. I saw one at Fyffe early on the morning of June 9, 1897 flying along a ditch and following its curves with precision. During the past summer Mr. Taylor and I observed a small hummingbird at Slippery Ford and also near the summit, but no specimens were secured to identify it as of this species.

Tyrannus verticalis. Arkansas Kingbird. On June 10, 1899 Mr. Carriger observed a single example of this flycatcher in the orchard at Fyffe. A pair were nesting half a mile east of Smith Flat in a poplar tree on June 11, 1899.

Myiarchus cinerascens. Ash-throated Flycatcher. Some distance below Fyffe on June 8, 1897 Mr. Carriger and I observed a pair flying about a tall stub where they no doubt had a nest. It is probable that this species does not occur far above 3,000 feet.

Sayornis nigricans semiatra. Black Phoebe. On June 7, 1896 I found a nest of this species between Folsom and El Dorado containing young about to fly. This is my only record though the species probably occurs as far up as Placerville.

Contopus borealis. Olive-sided Flycatcher. A common species all through the Sierras, its shrill notes from the tall, dead trees marking its presence everywhere. The birds are very cautious after nesting has commenced and its requires vigilance to detect either bird at the nest. The male will sit in one place seldom varying its monotonous note for even an hour at a time, if it finds it is observed, and now and then a low chuckle from the female on her nest is the only response, but too ventriloquistic to expose the location of the nest. The nests are completed at Fyffe by June 1 and contain fresh eggs until about the middle of June. I collected a nest on June 10 1897 from a fir tree, the nest being 72 feet from the ground on a horizontal limb. The nest was composed of rootlets with which was mixed a quantity of a bright yellow dry moss (*Evernia vulpina*) so common in the Sierras, and contained four eggs, one third incubated. This nest afforded an opportunity to attempt aerial photography with fair results. The birds were very pugnacious while I was in the tree, flying about with a lively snapping of beaks. June 14, 1897 Mr. Carriger found a nest in a Douglas spruce 72 feet up. This contained four eggs, but owing to the droop of the limb and the distance of the nest from the trunk of the tree it could not be reached. A scoop was tried but efforts to secure the eggs proved unsuccessful. The average heights of nests of

PHOTOGRAPHING AN OLIVE-SIDED FLYCATCHER'S NEST 70 FEET UP IN SILVER FIR.

this species seems to be from 60 to 70 feet, firs being the favorite tree. The eggs are among the handsomest of our flycatchers, each differing more or less in the intensity and style of its markings. A favorite perch of the male bird is the pinnacle of the tallest dead tree in the vicinity, where, owing to its height, the bird is scarcely perceptible at times.

[Common on Pyramid Peak and Mt. Tallac to at least 9000 feet.—W. W. P.]

Contopus richardsoni. Western Wood Pewee. A common summer resident of the entire region. It was usually observed well up in the trees its notes being uttered with regularity, in the intervals between which it would dart off after some passing insect. The nests are built in perfect mimicry with their surroundings and are usually hard to discover, except by watching the birds. June 9, 1897 I almost bumped into a nest built on a cedar limb six feet from the ground, which contained three eggs, the usual complement. The situation of the nest is shown in the accompanying half-tone. On June 14 a second nest was found 15 feet upon a small projecting limb of a burnt tree, and held four small young. The nest seemed conspicuous when its location was known. The wood pewee nests earlier at Fyffe than it does farther up, and the two nests mentioned were there observed. On June 13, 1901 a nest and three fresh eggs were taken at Slippery Ford, the nest being saddled onto a horizontal black oak limb, 40 feet up. The wood pewee and olive-sided flycatcher occupy very similar territory throughout this region.

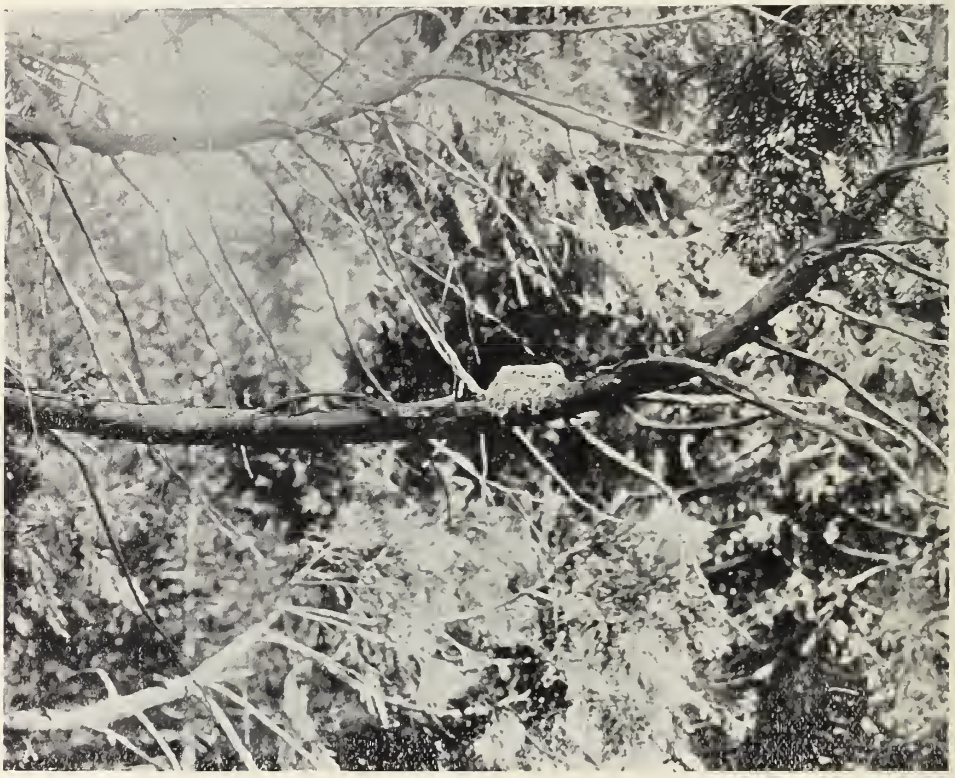


PHOTO BY C. BARLOW

WESTERN WOOD PEWEE'S NEST ON CEDAR LIMB.

Empidonax difficilis. Western Flycatcher. Not uncommon in the beds of the deep canyons, where it nests along the stream in up-turned logs and similar sites. One nest taken by Mr. Taylor at Fyffe on May 27, 1897 contained four eggs, about one-third incubated and was placed in the end of a moss-grown, up-turned log. On June 16, 1898 we found a nest built in a cavity of a burnt-out spruce in Weber canyon.

Empidonax hammondi. Hammond Flycatcher. This little flycatcher is found in the open country where brush is plentiful, though usually near timber. Its peculiar weak note calls one's attention to its presence. In 1897 Mr. Carriger found two nests of this species at Fyffe, built not more than 100 feet apart. The first was found on June 15, and was built on a horizontal limb of a dogwood tree sixteen feet up. It held two eggs, in which incubation was begun. The female parent was collected and determined later by Dr. C. W. Richmond. The second nest was built in an upright fork of a manzanita bush four feet from the ground and held four eggs. Thus the nesting sites seem to vary, and the general actions of the birds very much resemble those of *E. trailli.*

[Late in the summer the young of this flycatcher are common in the tamarack thickets along Silver Creek and on the slopes of Pyramid Peak. They are usually associated with the young of two or three warblers and Cassin vireo. I have noted this congregation each season previous to the migration. The large scattering flocks are often miles in extent, and probably contain thousands of birds. —W. W. P.]

Empidonax wrighti. Wright Flycatcher. One specimen shot by me from a black oak in a clearing on June 20, 1896. Its presence at Fyffe at this date may be regarded as evidence of its nesting there. In the undergrowth of deer brush, interspersed with black oaks, at the Fourteen mile house a small Empidonax was very common, but as no specimens were secured I do not know whether the birds were referable to this or to the preceding species.

Otocoris alpestris leucolæma. Pallid Horned Lark. On October 6, 1901, Mr. L. E. Taylor collected a female horned lark at Meyer's Station in Lake Valley from a group of three birds. October 9 near Lake of the Woods at 8,900 feet altitude Mr. Taylor writes that he saw a flock of several hundred horned larks and secured one by a long shot. Mr. Joseph Grinnell has kindly compared the two specimens with his series and pronounces them referable to *leucolæma*, mentioning at the same time that so far as he is aware this constitutes the first record of this subspecies for California.

Otocoris alpestris rubea. Ruddy Horned Lark. Observed commonly on the plains of the Sacramento valley and up as far as Latrobe. It probably does not occur as far up as Placerville but its occurrence at Latrobe seems to justify giving it a place in the list.

Pica pica hudsonica. American Magpie. Reported as common about Meyer's Station during the fall of 1901. Mr. Taylor sent me a male bird which was caught in a coyote trap on Sept 22. Observed by various other workers about Lake Tahoe.

Pica nuttalli. Yellow-billed Magpie. Noted from the train a short distance west of Latrobe. Probably occurs farther up in the blue oak belt.

Cyanocitta stelleri frontalis. Blue-fronted Jay. A common species, its hoarse cries resounding through all the canyons. It seems to keep close to the timber. At Fyffe on June 16, 1898 I found young just out of the nest, presenting a ludicrous, bob-tailed appearance. A number of vireos were observed pursuing several marauding jays, the sharp, rasping notes of the former drawing attention to the chase. On the Forni meadow at the base of Pyramid Peak a nest of this species was found on June 9, 1900 containing four incubated eggs. The nest was near the top of a 12-foot tamarack and was largely composed cf mud and manure, but a few sticks being used as a foundation. Mr. Atkinson found a nest well up in a red fir tree on the same date, containing small young. At Fyffe on June 7, 1901 I found a nest in the extreme top of a 30-foot yellow pine, conspicuously situated as are most of the robins' nests. It proved to be a jay's nest and held four fully-feathered vociferous young.

Aphelocoma californica. California Jay. A common species of the chaparral belt and observed on the hillside about four miles east of Placerville.

Corvus americanus. American Crow. Observed in the region frequented by the yellow-billed magpie near Latrobe.

Nucifraga columbiana. Clarke Nutcracker. A small colony was found in a grove of hemlocks at 8,500 feet altitude on the southeast slope of Pyramid Peak on June 9, 1900. The birds kept well out of the range, cawing contentedly, while the cold wind of the peak did not conduce to following them up. Mr. Pratt, the genial proprietor of Sugar Loaf Hotel (altitude about 4,000 feet) tells me that during the winter the Clarke crows appear quite often about the hotel, readily coming within in a few feet of him to secure food. He states that this species and the blue-fronted jays help immensely to liven the long winter days, when the heavy snowfall prevents communication with the outside world.

[Common almost everywhere above 8000 feet. They proved exceedingly annoying on Mt. Tallac, where they continually pilfered my traps set for small mammals. I caught several in July 1892 in steel traps baited with meat.—W. W. P.]

Xanthocephalus xanthocephalus. Yellow-headed Blackbird. Observed by Mr. Beck nesting in the marsh near Bijou on the shore of Lake Tahoe in June 1896.

[A flock of six or eight were observed in a meadow in June 1896 a few miles east of Placerville, and several were collected. It is hardly pos-ible they were breeding there, but rather were resting from their flight over the mountains.—W. W. P.]

Agelaius gubernator californicus. Bicolored Blackbird. I was told it nested in a meadow at Sly Park, a short distance south of the 14-mile house. Reported as nesting commonly on the southerly shore of Lake Tahoe. Mr. Piatt of Slippery Ford told me that the various blackbirds migrate down the American River canyon in the fall, often in large numbers.

Agelaius tricolor. Tricolored Blackbird. Observed nesting on the shores of Lake Tahoe by Mr. Beck, who collected a set of five eggs on June 12, 1896.

Sturnella magna neglecta. Western Meadowlark. Mr. Forrest S. Hanford observed five in a meadow near Smith Flat on May 1, 1901. Mr. Taylor sent me a specimen shot at Meyer's Station in Lake Valley on Sept. 30, 1901, at which date he stated they were going about in flocks. Recorded by Mr. C. A. Swisler at Placerville.

[Observed in 1896 at Placerville, Six-mile House and Pacific House. I have never seen this species in any of the meadows above 5000 feet.—W. W. P.]

Icterus bullocki. Bullock Oriole. Three individuals were noted in Placerville on May 1, 1901 by Forrest S. Hanford, while on his journey from Placerville to Carson City. Recorded by Mr. Chas. A. Swisler at Placerville.

Scolecophagus cyanocephalus. Brewer Blackbird. A flock was observed at the Five-mile House where a large cattle corral affords typical surroundings. Observed in Lake Valley during June 1901.

[Common about Wright's Lakes near Pyramid Peak, 7000 feet, where they nest in pines along the lake shore. Observed April 19, 1897 at Slippery Ford, where they had evidently already paired.—W. W. P.]

Coccothraustes vespertinus montanus. Western Evening Grosbeak. A bird of apparently local distribution in the mountains, nowhere being abundant. Mr. Beck shot several at Fyffe June 10, 1896, but these were probably belated migrants passing up to higher altitudes. The first authentic nest and eggs of this species was secured by Mr. Beck in June 1896 at 5,000 feet elevation on a mountain-side. The nest was built in a black oak and was fairly conspicuous. It was composed of small sticks substantially lined with rootlets and contained four eggs. These resembled eggs of the eastern pine grosbeak more closely than those of any other species. For a complete account of the taking of this set see *Nidologist, IV, p. 3*, September, 1896. In June 1900 a small flock of western evening grosbeaks was observed above Slippery Ford, drinking from a small stream which flowed across the road. At Echo on June 14, 1901 a pair were observed among the red firs on a meadow and seemed to be engaged in nest building, but their movements could not be traced. A sharp, musical note is given at intervals, it seeming to be the same note uttered by the birds while in the valley in winter.

Pinicola enucleator californica. California Pine Grosbeak. Seemingly a species of irregular distribution, not occurring below 6,000 or 7,000 feet. On June 9, 1900 Mr. Atkinson and I came across a beautiful male in a bog on the Forni meadow. The bird was very tame and was probably nesting in the vicinity. At this place the red firs hold numerous accumulations of needles about the size of a nest, which would render the location of a nest difficult excepting by watching the bird. Several other specimens were seen at this point and a male collected. On June 14, 1901 at Phillip's Station near the summit the keeper described the pine grosbeak to me and mentioned that three of the birds were quartered in the house when he moved up a few days before. A description of this subspecies and an account of its habits may be found in the "Auk" Vol. XIV, p. 182.

Carpodacus purpureus californicus. California Purple Finch. A common species up to at least as far as Slippery Ford. Specimens collected at Fyffe and Slippery Ford, several of the male birds being in the grayish plumage. This species must nest commonly in this region, although I know of no nests having been taken. Mr. Carriger located a nest at Fyfte in 1899 placed well out on a high limb of a yellow pine, the nest being concealed by the needles. It was impracticable to attempt to collect the set and no effort was made to do so. This and the following species are among the most charming songsters of the forest, their full, rich warble floating down from the tall pines in the early morning with exquisite sweetness.

[Collected July 24, 1900 at Glen Alpine. Rare on the east slope of the Sierras.—W. W. P.]

Carpodacus cassini. Cassin Purple Finch. Common from Fyffe to the summit, having similar habits to the preceding species. Specimens were collected at various points along the road, many males being still in the gray plumage. On June 9, 1900 flocks of this species were found feeding along the edge of the snow on Pyramid Peak, and near the Fourteen-mile House a number were observed feeding in a clover field. A number were observed in Lake Valley near Tallac on June 15, 1901.

Carpodacus mexicanus frontalis. House Finch. A number were observed about the poplar trees at the Five-mile House. This altitude perhaps marks the upper limit of its range as we did not observe it beyond this point in summer. Mr. Taylor collected an adult male at Meyer's Station October 12, 1901. This specimen appears paler and larger than birds from the interior valleys and coast district.

Loxia curvirostra bendirei. Sierra Crossbill. On June 7, 1899 I shot a male crossbill at Fyffe; the bird was in high plumage but showed little evidence of nesting. The bird was sluggish in its movements, sitting on a low limb of a cedar tree where it was mistaken for a purple finch. On the following day a number were observed feeding in the tops of the pines, hanging head downward and uttering a sharp note. Mr. Taylor collected a female crossbill near Meyer's Station on Sept. 1, 1901.

[The crossbill is rare in summer in the Sierras. I have noted it on only two occasions, once Aug. 10, 1892 in hemlock timber near Pyramid Peak and again in 1900 at the head of Glen Alpine gorge.—W. W. P.]

Leucosticte tephrocotis. Gray-crowned Leucosticte. This species was met with but once,—on June 10, 1900 when we climbed Pyramid Peak. The summit of the peak is a conglomerate mass of bowlders and slabs of rock thrown together in chaotic order. About these rocks at the summit we noted two pair of leucostictes, one pair being secured. The contents of the stomach of the male bird were found to consist of the seeds of the white-bark pine, which grows in a dwarfed form up to perhaps within an eighth of a mile of the summit. The leucostictes appeared uneasy on account of our presence and after alighting for a moment on the rocks would sweep off in the strong wind, returning presently and frequently uttering their twittering note. This species undoubtedly nests among the rocks, and probably considerable patience would enable one to follow the female to her nest if the locality were visited at the beginning of the breeding season, which I should judge would be about the first of June.

[This species has been observed and collected by me each year, but I have never succeeded in finding its nesting place. Young just able to fly have been collected in late July. By the last of August leucostictes have begun to congregate in large flocks preparatory to a migration probably to the interior valleys of Nevada where they are often seen in large numbers in winter. Their chief food in late summer consists of the small seeds of a borage and a small *Eriogonum*. All the specimens examined contained more or less insect food, principally ants and small beetles. The birds delight in the broad snow-fields which cover the eastern slope of Pyramid Peak; here they may be seen searching for wind-blown insects and seeds. I have not seen the bird below 8000 feet—W. W. P.]

Astragalinus tristis salicamans. Willow Goldfinch. Observed in suitable localities about Placerville by Mr. Chas. A. Swisler.

Astragalinus psaltria. Arkansas Goldfinch. A common species in the mountain orchards at Fyffe and even higher up. I found a nest in a pear tree in June 1898 containing young, the parent bird allowing me to come within two feet of her nest with a camera. The species is probably common in suitable localities from Fyffe downward.

[In August, 1892, I shot a male Arkansas goldfinch flying over the very summit of Mt. Tallac. It was undoubtedly a straggler, for I have never since noted the species above 5000 feet.—W. W. P.]

Astragalinus lawrencei. Lawrence Goldfinch. [A pair were observed at Placerville, early in June 1897, in a deserted orchard below the town. A pair were shot at Folsom in May 1897, in the outskirts of the town where they were seen several times, apparently breeding.—W. W. P.]

Spinus pinus. Pine Siskin. On June 10, 1899 Mr. Carriger observed a flock flying about in the pines near the Fourteen-mile House. On June 9, 1900 at the base of Pyramid Peak a number were flying about the barn and corral of a dairy and seemed quite tame. Later in the day they were found in numbers feeding along the edge of the snow in company with the Cassin purple finches on the lower slopes of Pyramid Peak.

[Breeds commonly in a heavy forest of alpine hemlock at the head of Glen Alpine gorge. While no nests have been taken, the birds were heard at each visit, their shrill notes a very characteristic sound in the alpine woodland. Young have been taken in July and August. They were heard commonly on the slope of Pyramid Peak April 23, 1897, where snow covered the ground to a depth of ten or fifteen feet.—W. W. P.]

Chondestes grammacus strigatus. Western Lark Sparrow. Quite a common species at Fyffe in summer and observed as far up as the Fourteen-mile House. It frequents the clearings and mountain orchards, seldom entering the timber. Several nests were found in small cedars growing beside pasture fences.

Zonotrichia leucophrys. White-crowned Sparrow. A summer resident of the Sierras, being seldom found below 7,000 feet in this region. We first met it at the Forni meadow west of Pyramid Peak, where they were common June 10, 1900. The meadow, traversed by numerous little streams along which willows grew in thickets, offered an agreeable nesting site for the species but the bushes were just coming into leaf on this date, which probably delayed nest-building a week or more. Early in the morning the song of this sparrow came from all sides of the meadow, a pleasant though somewhat dolorous note. At a meadow west of Phillips Station, white-crowned sparrows were common, and indeed I have seldom found a place where mountain bird life of all kinds was so abundant. When we stopped for a few moments a medley of songs was in progress, to particularize upon any of which would be an invidious comparison. On June 11, 1900 while travelling over the ridge down to Echo postoffice I flushed a white-crowned sparrow from its nest and single egg in a patch of *Ceanothus cordulatus*. The nest was composed of very fine twigs with a lining of grasses and fine rootlets. The nest measured outside 4½x3½ inches; depth one inch. The egg was of a light greenish-white color, softly marked with lavender. This species is one of the most interesting birds of its zone and my regret is that I have not been permitted to spend more time in its habitat.

Zonotrichia leucophrys gambeli. Intermediate Sparrow. I have in my collection four specimens of this race, collected by Mr. L. E. Taylor as follows: ♀ Glen Alpine Springs, Sept. 17; ♂ Grass Lake, Sept. 17; ♂ Glen Alpine Springs, Sept. 18; ♀ Meyers Station, Sept. 29, 1901. The taking of these intermediate sparrows in the breeding habitat of the preceding species would indicate that the latter had migrated before the middle of September, their places being in turn taken by *Z. l. gambeli* in its migration from the north.

Spizella socialis arizonæ. Western Chipping Sparrow. One of the commonest species, being abundant at Fyffe and observed up to the summit. In this region it seems to possess notes which are not ordinarily heard in the valley and in consequence it is sometimes collected with the idea that it may be other than a chipping sparrow. Its well-known trill is by far the commoner note and the species is found in almost every location. At Fyffe nest-building commences in May but fresh eggs have been found through June, perhaps second layings. My first nest was in the top of a very brushy black oak thirty feet up. No birds being about I speculated concerning the possible rarity of the nest and after a ludicrously hard climb was rewarded with a set of three eggs of this sparrow. Thereafter I sought easier nests, preferably those four or five feet up in cedar and pine saplings. Nesting dates for Fyffe are as follows: June 10, 1897, nest and four young in a low bush one foot from ground; June 10, 1898, four incubated eggs, nest in a small cedar three feet up, the eggs marked with brown; June 15, four fresh eggs, nest seven feet up in pine sapling beside road; June 6, 1901, nest with full fledged young in cedar sapling four feet up; June 7, nest and four fresh eggs three feet up in manzanita bush; June 7, nest and four fresh eggs ten feet up on drooping limb of black oak.

Spizella breweri. Brewer Sparrow. Several shot in the sage-brush near Meyer's Station by Wilfred H. Osgood in June, 1896. This region seems well adapted to the species.

Junco hyemalis thurberi. Thurber Junco. A common summer resident from 3,000 feet altitude to the summit. At Fyffe the species is not common, but increases in numbers as we ascend. There is the usual variation in its nesting dates, young and fresh eggs being often found at the same time in one locality. On June 17, 1896 I found a nest at Fyffe, containing half-grown young, the nest being concealed in the "mountain misery." Mr. Taylor found a nest in May, 1896 built in a depression in the side of an irrigating ditch, the nest and its surroundings being composed entirely of pine needles. On June 12, 1897 Mr. Carriger collected a nest and four fresh eggs at Fyffe, the nest being hidden among some brakes in the forest. June 11, 1898 young in the streaked plumage were shot at Fyffe. On June 10, 1900 a nest was found at about 3,000 feet, built in the pine needles on a bank, and contained four young. During the latter part of May of the present year Mr. Taylor found a nest at Fyffe, situated in a dense growth of brakes, containing fresh eggs. On June 14 while walking along the road near the summit a junco flushed from beneath my feet and a nest was found built in the side of a shallow ditch and concealed effectually by a tiny tamarack. It held four fresh eggs. The birds always exhibit alarm when their nesting domain is invaded and if the female be carefully watched the nest may be usually located within a short time.

Melospiza melodia montana. Mountain Song Sparrow.

[I have seen a song sparrow several times about Lake Tahoe, especially in the marshy tracts near Tallac, but none have been taken. In July 1898 a song sparrow which I took to be this form was shot at Lily Lake in Glen Alpine. The specimen unfortunately was destroyed. A nest containing four eggs taken with this specimen, was built among ferns under a fallen aspen. The nest was of usual Melospiza formation, and the eggs are not different from those of *M. m. heermanni.*—W. W. P.]

Melospiza lincolni. Lincoln Sparrow.

[Two specimens were taken at my camp on Silver Creek in Sept. 1896. They were probably migrants.—W. W. P.]

Passerella iliaca unalaschcensis. Townsend Fox Sparrow.

[Six or eight sparrows of this form were taken on Silver Creek, within three miles of Pyramid Peak in Sept 1896. One specimen was very light colored and referable to the fox sparrow, rather than to *P. i. unalaschcensis.*—W. W. P.]

Passerella iliaca megarhyncha. Thick-billed Sparrow. A common resident and sweet singer of the region, as abundant at Fyffe apparently as it is at higher altitudes. It is partial to the large tracts grown up to deer brush where, in the shade, it seeks seclusion, scratching for its food on the ground and only now and then mounting some branch to pour forth its liquid song. At Fyffe I watched one on a cedar tree fifteen feet up and approached to the foot of the tree but the bird continued singing, unmindful of my presence, quite in contrast to the usual timid and secretive nature of this species. I have never discovered a nest of this bird although I have searched carefully a considerable area in which they were common. An old nest a foot up in a deer brush I ascribed to this species. On June 8, 1899 Mr. Carriger flushed a thick-billed sparrow from beneath a fallen tree at Fyffe. The bird ran quietly along the ground and disappeared, while the nest was found under the log, being a depression lined with grass and containing two eggs. No more were added to the set, which was collected with the parent a few days later. The thick-billed sparrow is one of the representative birds of the region, and withal one of its sweetest songsters.

Pipilo maculatus megalonyx. Spurred Towhee. A common bird of the region, occurring as far up at least as Echo. About Fyffe it seemed impossible to go into the deep woods, where bird life is usually scarce, without having a spurred towhee appear close at hand, uttering its catcall. On June 8, 1897 I found a nest containing three unfeathered young and one egg on a hillside under a bush. By far the prettiest nest found was on June 11 of the same year. The situation was a small clearing in the forest grown up to cedar saplings about two feet high. Beneath one of these reposed the nest and its three eggs, the lining of light grasses setting them off to good advantage. As in the valley this towhee does not nest on the ground entirely, for Mr. Taylor found a nest on June 12, 1897 containing two eggs, placed six feet up in a bush beside a ditch. It was composed of pine and spruce bark and lined with light yellowish grass. On June 6, 1899 Mr. Carriger collected a nest and four fresh eggs at Fyffe. The birds, despite their commonness, are very interesting to watch, and soon become neighborly if the observer will sit quietly in one place.

Oreospiza chlorura. Green-tailed Towhee. A very interesting species, occurring from Fyffe to the summit and also about Lake Valley. At Fyffe it was seen and heard occasionally in a large burnt area, keeping close to the dense growth of deer brush. On June 12, 1897 at Fyffe I found a nest 1½ feet up in a *Ceanothus* bush, containing five fully fledged young, which scattered at my approach. Observed very commonly at Echo and Mr. Taylor sent me two specimens taken in September at Glen Alpine Springs.

Pipilo fuscus crissalis. California Towhee. On June 4, 1900 we observed this towhee at about 2,500 feet altitude in the manzanita brush on a hillside. This particular portion of the region resembles the Upper Sonoran more than the Transition zone and probably the species occurs commonly up to about this altitude.

Zamelodia melanocephala. Black-headed Grosbeak. A common summer resident up to at least 4,500 feet altitude. It probably extends higher up in suitable locations. The species is one of the most pleasing and constant songsters of the region, its rich whistle resounding through the woods from day-break to dusk. In the mountain orchards they prey upon certain fruits such as cherries and it requires vigilance to secure even a portion of the crop. The black-headed grosbeak nests almost entirely in the thick deer-brush, the average height of its nests being ten feet and the usual complement of eggs four. When the nest is disturbed the male bird appears almost instantly and much screeching follows, especially if the nest contains young. Numerous nests with young or fresh eggs have been found at Fyffe from June 1 to 10.

[I have never noticed this grosbeak in the Glen Alpine region, nor on the west side of the mountains above 5000 feet. W. W. P.]

Cyanospiza amœna. Lazuli Bunting. This species is not uncommon on open hillsides and in the mountain orchards about Fyffe. On June 10, 1897, Mr. Beck collected a nest and four fresh eggs at Fyffe, the location being a bush about three feet high. Mr. Taylor and I noted the species in June, 1901, at about 5,000 feet altitude on Peavine ridge.

[A single specimen was shot in September, 1896, on Silver Creek, at about 7,000 feet. It seems rare above 4500 feet. W. W. P.]

Piranga ludoviciana. Louisiana Tanager. Common in the timber from 3000 feet to the summit. It feeds principally in the black oaks, where its gaudy plumage contrasts sharply with the light green leaves. Birds are seen through the forest with all shades of intensity in the red coloration. During June, 1901, the species seemed unusually abundant, traveling about the forest in flocks especially at Slippery Ford, though the cool summer may have been responsible for late mating and nest-building. At Fyffe on June 17, 1896, I found a nest 18 feet up on a horizontal pine limb, containing four incubated eggs. June 12, 1897, a nest built at the tip of a spruce limb 35 feet up was found containing young. June 16, 1898, a nest was located 50 feet up on a horizontal pine limb and contained young. On June 9 at Pacific and June 14 at Echo nest-building was just in progress. The black oak trees are frequently resorted to as nesting sites, the nests being always built on a horizontal limb.

[Noted to at least 9000 feet on both Pyramid Peak and Mt. Tallac, but is perhaps most abundant between 3000 and 6000 feet. In August the young are often met with in flocks of a dozen or more, feeding among the tamarack pines in company with several kinds of warblers, vireos and flycatchers. This gathering preliminary to migration has been noted each year that I spent at Silver Creek, and also in Glen Alpine. W. W. P.]

Progne subis hesperia. Western Martin. On June 4, 1900, a number of these martins were circling about the Cary House at Placerville, in the top brick-work of which they appeared to be nesting. They twittered sharply during their flight up and down the main business street of the town.

[Found nesting, in July 1896 in holes in a blasted pine stub some sixty feet from the ground. This was on the top of the Peavine ridge, about four miles northeast of Slippery Ford. None were shot, but the nearness of the birds and their notes made identification positive. W. W. P.]

Petrochelidon lunifrons. Cliff Swallow. Common about the barn at Fyffe on June 6, 1899. Nesting abundantly on the barn at Meyer's Station on June 15, 1891.

Hirundo erythrogaster. Barn Swallow. Observed at Fyffe with the preceding species on June 6, 1899. At the Brownell place above Slippery Ford a pair were nesting in the barn on June 11, while the species was common at Meyer's Station on June 15, 1901.

Tachycineta bicolor. Tree Swallow. Reported by Mr. Beck as nesting commonly in dead stubs at Bijou on the shore of Lake Tahoe, one nest found on June 2, 1896, being built in an old woodpecker's hole.

Tachycineta thalassina. Violet-green Swallow. [Common in August on the lakes in Glen Alpine, where some have been shot nearly every year. They appear usually on cloudy, rainy days and skim low over the water. The greater part seem to be young and they are probably on a migration. This year 1901, I saw numbers August 12, flying over the lakes in Desolation Valley, on the north side of Pyramid Peak, 8000 feet. W. W. P.]

Ampelis cedrorum. Cedar Waxwing. Recorded by Mr. Chas. A. Swisler at Placerville as an occasional winter visitant, going abont in flocks of 25 or 30 birds.

Lanius ludovicianus gambeli. California Shrike. Observed by Mr. Chas. A. Swisler about Placerville.

Vireo gilvus. Warbling Vireo. This species is common in summer at Fyffe and was also heard on the Forni meadow at 7,500 feet altitude in June, 1900. One nest was found in a small black oak at Fyffe on June 15, 1897 containing eggs. This nest did not differ in anywise from nests found in the valley.

Vireo solitarius cassini. Cassin Vireo. The most common vireo of the Sierras, being usually found on the edge of clearings where it is partial to the black oaks, from which it principally obtains its food supply. The nests are suspended from drooping limbs of the oaks, and the sharp, expressive note of the parent bird frequently is uttered on the nest, the male responding; but more often the male bird will remain in or near the nesting tree while he sings. Four eggs is the usual complement, although I have twice found five eggs or young. The nests are invariably covered exteriorly with flakes of a white cocoon found in the woods, and the habit is as constant with this species as is the use of moss by Hutton vireo in its nest-building. Fresh eggs may be found at various altitudes through June, and are large for the size of the bird. Nesting dates at Fyffe are as follows: June 17, 1897, four incubated eggs, nest three feet up in black oak bush; June 20, nest with *five* half-grown young, five feet up in drooping black oak; June 9, a nest and four incubated eggs, suspended from black oak limb seven feet up; June 15, nest containing four fresh eggs, placed twelve feet up on drooping limb of black oak; June 6, 1900 a nest and *five* incubated eggs, ten feet up on drooping black oak limb.

[Rare in Glen Alpine except during the early migration of the young, when they are very common, being associated with warblers and often chipping sparrows and juncos. W. W. P.]

Vireo huttoni. Hutton Vireo. Heard commonly at Fyffe and several specimens shot during June. The pine region seems scarcely a suitable habitat for this species, but it evidently nests. It would be interesting to know whether or not the bird's custom of finishing the outside of its nest with moss as followed in the valley and foothills is here carried out. If so, the use of the brightly-colored moss (*Evernia*) would lend a handsome effect to the nest.

Helminthophila rubricapilla gutturalis. Calaveras Warbler. This was found to be a common species from Fyffe to above Echo, frequenting the deer-brush and hillsides of *Ceanothus cordulatus*, whence came its distinctive song. Although the species is far from rare in numbers, it appears that but comparatively few of its nests have been taken, but this is not strange when we consider the extent and nature of the country selected for nesting sites. It is usually by the merest chance that a nest is discovered, as successful a method as any being to beat through the "mountain misery" in the vicinity of where the male bird is found singing. Mr. Lyman Belding found several nests of this warbler at Big Trees farther south in the range. In 1896 Mr. Wilfred H. Osgood collected two sets of five eggs each, one at Fyffe and one near Slippery Ford. The taking of these two sets is described at length in *The Nidologist* (III, p. 140). On June 9, 1899 I flushed a Calaveras warbler from her nest in the tar-weed beneath a small cedar at Fyffe, at which date the nest held five half-grown young. Again at Fyffe on May 21, 1900 Mr. Taylor found a nest and five fresh eggs on the bank of a small ditch flowing out of the forest. The nest measured three inches outside diameter and was composed of weed-stems, grasses and a small quantity of bark. It was

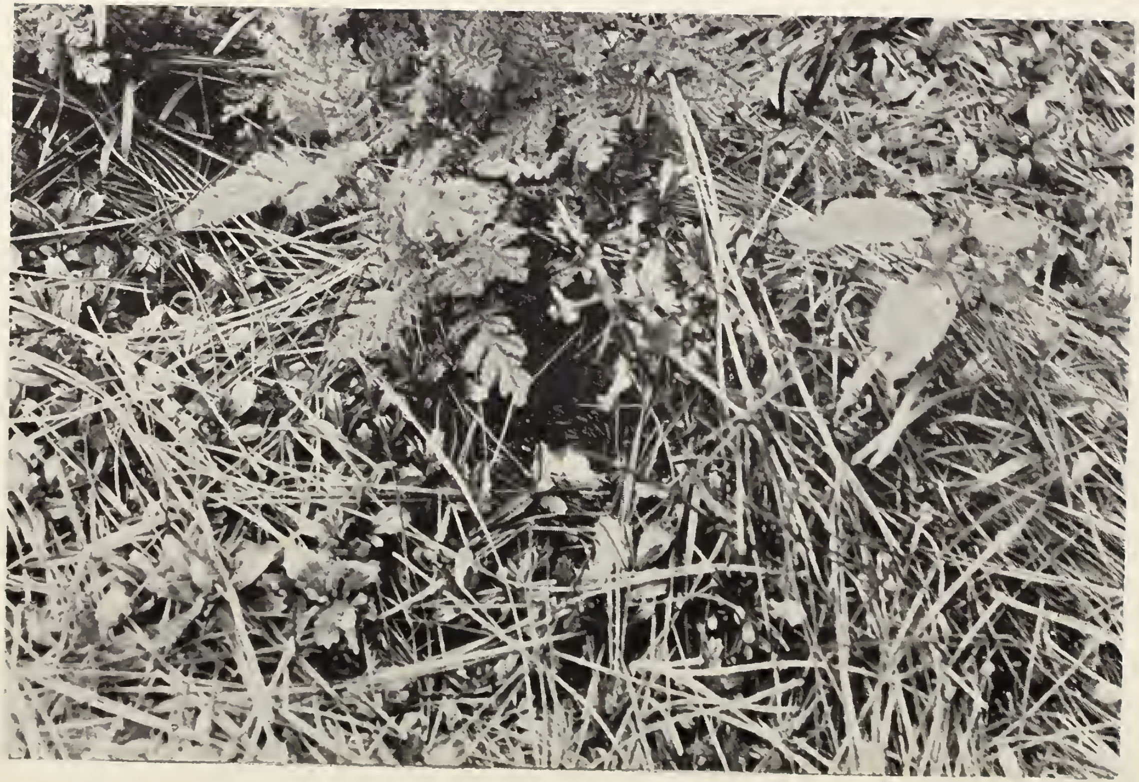


PHOTO BY C. BARLOW

NEST AND EGGS OF CALAVERAS WARBLER.

lined almost entirely with soap-root fiber, which appears to be the usual material employed. This nest and its situation is shown in the accompanying cut. On June 10, 1901 at Slippery Ford a nest was found built among an accumulation of dry black oak leaves beneath a deer-brush on the side of a gulch. It contained five eggs, two-thirds advanced in incubation at this date. As is shown by the above nesting records, five eggs constitute the usual set and the eggs are laid from May 20 into June, according to altitude. This warbler was observed commonly at Echo, where the hillsides echoed with its song.

[Rather common at Glen Alpine in the thickets of *Ceanothus cordulatus* and on the slopes of Mt. Tallac to at least 8000 feet. While the female is usually seen in shrubbery near the ground the male is more often seen and heard singing in trees of considerable size. W. W. P.]

Helminthophila celata lutescens. Lutescent Warbler. One specimen shot at Fyffe in June, 1897, but I should consider it an irregular summer visitant in the region. Mr. Taylor sent me two females shot near Glen Alpine Springs on September 17 and 18, 1901, doubtless migrants.

[Rather common in the willows and tamarack pines in Glen Alpine and on Silver Creek to at least 8000 feet in July and August. I have no evidence that it breeds. W. W. P.]

Dendroica æstiva. Yellow Warbler. At Fyffe this species occurs commonly, mingling with the other warblers in the black oaks. On June 16, 1898, while crawling through a patch of deer-brush in search of thick-billed sparrows' nests, I noticed a small nest three feet up in the top of a bush and it was presently claimed by a yellow warbler. The contents were two advanced and one infertile egg. The nest was composed of the usual grayish plant material and did not differ from nests found in the valley. Personally I have not observed this species above Fyffe.

Dendroica auduboni. Audubon Warbler. A fairly common species at Fyffe and upward to the summit. It vies with the hermit warbler in keeping close to the conifers, and the male in breeding plumage is a bird of rare beauty. All the nests I have found have been at comparatively low elevations in the trees, but the birds are frequently seen high up in the tall pines and firs, where it is likely that many of them nest. Audubon warbler, although not nominally a bird of the Transition zone, was observed most commonly at about 3,500 feet altitude below Fyffe where a dense growth of cedars had sprung up after a forest fire. This seemed the center of abundance and a number of pair were nesting within a small area. June 15, 1897, I found a nest 4½ feet up in a small cedar sapling, built next to the trunk. It contained a single egg and had evidently been deserted. The nest was generously lined with feathers, prominent among which were several of the plumed quail. On June 5, 1900 at 3,500 feet altitude a nest was found 20 feet up on a drooping pine limb, containing full-fledged young. The parent birds showed the direst distress, dragging themselves about on the ground in their attempts to mislead us. At the Forni meadow, altitude 7,500 feet, on June 10, 1900 I found a nest 15 feet up on a horizontal limb of a red fir, containing four fresh eggs. The outside of the nest was composed of plant stems, the inner section of bark strips and grass, with a lining of horsehair and feathers. The eggs were heavily marked for this species, being blotched confluently with umber and lilac. The nests of this warbler are larger than those of any of the other Sierra warblers, while the eggs have a distinctive coloration.

Dendroica nigrescens. Black-throated Gray Warbler. Common about Fyffe and observed as far up as Slippery Ford. Of all the warblers it seems to be the

PHOTO BY C. BARLOW

COLLECTING A BLACK-THROATED GRAY WARBLER'S NEST.

most partial to the edge of clearings, where it carefully works over the deer-brush in search of food. Occasionally it is found in the higher conifers, and is perhaps the most active of the warblers. The black-throated gray warbler nests commonly about Fyffe, where the following nesting records were secured. A wide range of nesting sites is shown, the birds building from low bushes well up into the pines. June 15, 1897 a nest was noted seven feet up in the center of a manzanita bush containing four badly incubated eggs. In 1899 Mr. Carriger located a number of nests, the first being 12 feet up on a drooping limb of a pine. This was collected with its four fresh eggs, the circumstance being shown in the accompanying half-tone. The location was an ideal one, being a small clearing in the forest, with towering timber all about. June 7 Mr. Carriger found another nest, which the young were just leaving; on the same day a nest four feet up on a horizontal *Ceanothus* limb, containing three fresh eggs; another five feet up in the deer-brush with four fresh eggs. On June 9 Mr. Carriger followed a female warbler to her nest, which was placed on a horizontal pine limb, 52 feet above the ground and contained four eggs. The nests of this species resemble those of the yellow warbler more closely than the nests of any other species, being composed outwardly of gray plant material, with a lining of fibers and feathers. On June 6, 1900 Mr. Atkinson found a nest and four fresh eggs built in a small cedar sapling four feet up, while I found a nest with large young at Fyffe on June 6. 1901, built similarly in a cedar six feet from the ground.

Dendroica townsendi. Townsend Warbler.

[A male was shot near Gilmore Lake, on the slope of Mt. Tallac, at 8500 feet early in August 1900, by Mr. Charles Merrill. The specimen was skinned by myself and is in my collection, but at present not available for the exact date. W. W. P.]

Dendroica occidentalis. Hermit Warbler. This species has served to give Fyffe some little prominence, inasmuch as it has been studied with interest by numerous ornithologists who have made Fyffe their headquarters. I have found it nowhere so common as at Fyffe in summer, although scattering birds have been observed as far up as the summit. The hermit warbler is pre-eminently a frequenter of the conifers, although it feeds in the bushes and black oaks in common with other species. Its song is different from that of any other Sierra warbler and seems well represented by the words *zeegle zeegle zeegle zeek*, which I borrow from a letter written me by Mr. C. W. Bowles of Waldo, Oregon. Personally I have been unable to hit upon a combination of letters which represents the song nearly so well. At close range the song of the hermit warbler appears weak rather than otherwise, yet at Fyffe I was impressed with its penetration. In front of the station a corral of several acres reaches back to the border of the forest, and yet the song of this warbler could be heard with great distinctness as we sat on the porch. The bird will often mount to the higher branches of the conifers by successive hops, much after the manner of the blue-fronted jay. Up to the present time the eggs of the western warbler have remained rare in collections, and the few known sets have been taken within a small radius of Fyffe. Some years ago Mr. Chas. A. Allen found several nests of this warbler at Blue Canyon, but through various mishaps failed to secure a set of eggs. Major Bendire collected a set of warbler's eggs on the Des Chutes River in Idaho which he thought belonged to this species, but the parent bird was lost after being shot and I believe the identity was never cleared up. On June 10, 1896 Mr. R. H. Beck collected a nest and four eggs from a limb of a yellow pine 40 feet up, near the American River at 3,500 feet altitude. The nest was reached by means of a ladder carried a

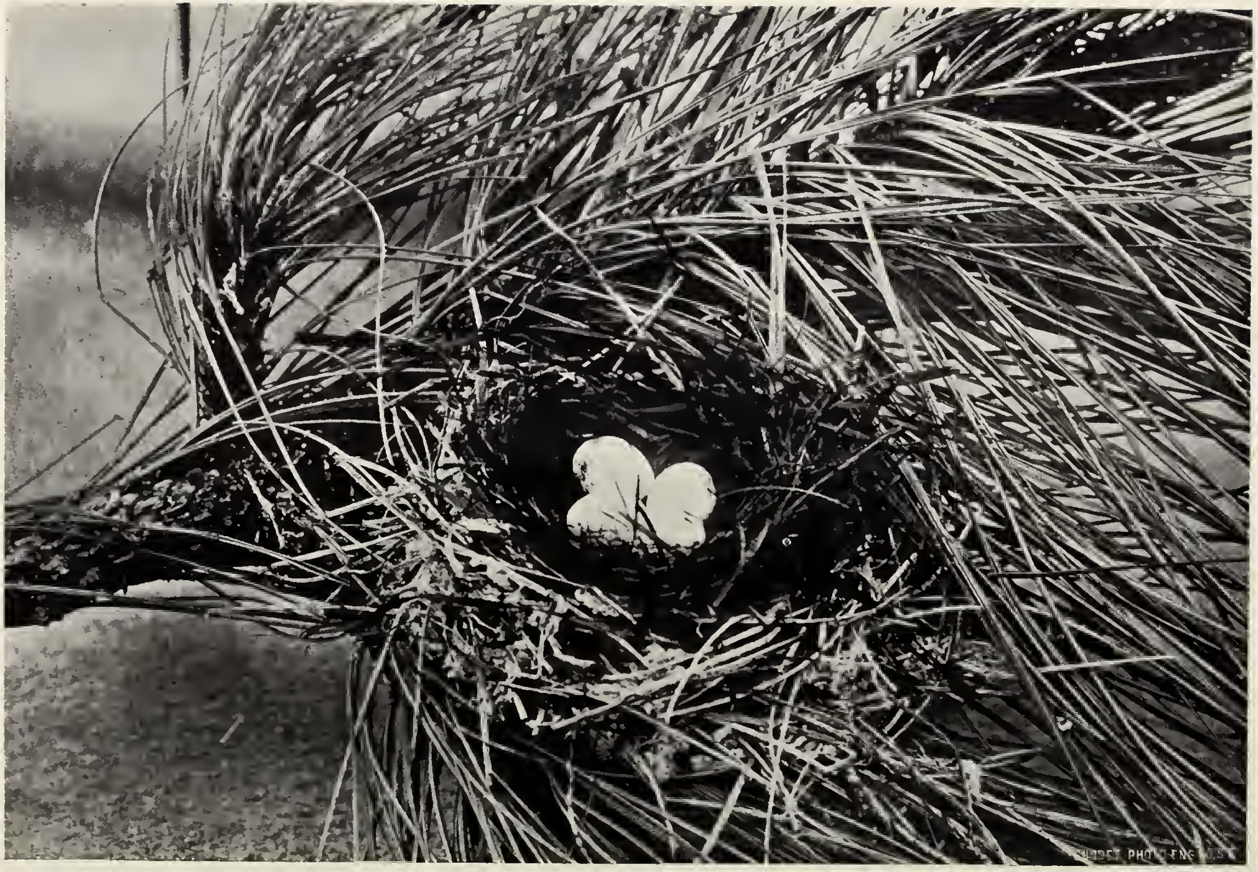


PHOTO BY C. BARLOW

NEST AND EGGS OF HERMIT WARBLER (2-3 NATURAL SIZE).

long distance up the mountain. (See *Nidologist*, IV, p. 79). On June 14, 1898 I had the good fortune to discover a nest opposite the station at Fyffe, it being built at the end of a small limb of yellow pine 45 feet up. The nest was located by searching at random and contained four eggs about one-fourth incubated. This set was described at length in *The Auk* (XVI, pp. 156-161). A half-tone of the nest and eggs is shown herewith. While walking through the timber at Fyffe on June 8, 1899 Mr. H. W. Carriger came upon a nest of this species but 2½ feet up in a cedar sapling. It contained four eggs, advanced in incubation. (See Condor I, pp. 59-60). A nest containing young about four days old found by by Mr. Price's assistant at Fyffe on June 11, 1897, was placed twelve feet up near the top of a small cedar, next to the trunk and well concealed. Thus it is probable that Fyffe has afforded more nesting records of this species than has any other part of the state. In 1900 Mr. Taylor picked up a warbler's nest at the foot of a large fir tree from which it had evidently fallen. It undoubtedly belonged to this species, having the distinctive composition noted in all the nests observed. This is shown very well in the illustration, the inner lining of cedar bark and soap-root fiber being always present. Young birds but a few days out of the nest were observed on several occasions, they being of a light gray color, with two white wing bands.

[I have not found the hermit warbler where I thought it breeding above 6000 feet, but I have collected specimens both on Mt. Tallac and Pyramid Peak as high as 9000 feet. The adults are very rare during June and July in the neighborhood of my camp at Silver Creek, but late in July and early in August a migration of the young birds of the year takes place and the species is very abundant everywhere in the tamaracks from about 6000 feet to 8000 feet. A hundred or more may be counted in an hour's walk at my camp, 7000 feet, on Silver Creek. They are very silent, uttering now and then a "cheep," and always busy searching among the leaves and cones for insects. Among some fifty collected in the first week in August, 1896, there were only two or three adults. The young males have the most coloring, but they in no way approach adult plumage. These great flights of the hermit warbler are intermingled with other species, Hammond flycatcher, Calaveras and lutescent warblers, Cassin vireo, and sometimes Louisiana tanagers and red-breasted nuthatches. Each year the flight has been noted, it comes without warning of storm or wind, and after a few days disappears to be seen no more. W. W. P.]

Geothlypis tolmiei. Macgillivray Warbler. Found commonly about Fyffe and as far up as Echo, always frequenting the brushy hillsides where grows the several species of *Ceanothus*. At Fyffe the species seemed very common in what is known as the "burnt district,"—an area which was swept by a forest fire some years ago and which has since grown up thickly to deer-brush and cedars. On June 9, 1897 a brood of young were travelling about in the brush with their parents. A day later Mr. Beck took a nest and four fresh eggs one foot up in a small cedar. On June 14, 1901 I collected two male birds near Echo where they were found in the prickly *Ceanothus cordulatus*, in which they no doubt nest. On the whole Macgillivray warbler occupies territory of the same nature as does the Calaveras warbler in this region, the two often being found together in the brush.

[Rather common up to 8000 feet in both the Silver Creek region and on Mt. Tallac. W. W. P.]

Geothlypis trichas occidentalis. Western Yellowthroat. [I have seen a yellowthroat referable to this species in the marshes about Tallac, but no specimens have been secured. I have never seen the yellowthroat either on Silver Creek or in Glen Alpine. W. W. P.]

Wilsonia pusilla pileolata. Pileolated Warbler. On June 14, 1901 I observed a pair of these warblers on a meadow near the summit, altitude about 7500 feet. The birds were prospecting about a willow patch, where they would probably have nested, had I not collected the female. Mr. Taylor collected a male at Grass Lake September 17. I have not observed this species at the lower altitudes of the pine belt.

[Common in Glen Alpine and on Silver Creek, where specimens have been collected each year. A nest containing five eggs was collected in Glen Alpine at Lily Lake in July 1898. The nest was placed on the ground, under a fallen aspen. The female was shot as she left the nest. W. W. P.]

Cinclus mexicanus. American Dipper. Mr. Taylor observed it above Echo June 16, and it doubtless occurs commonly along the American River where there are numerous wild situations admirably adapted to its occupancy.

[Common wherever there are streams to at least 9000 feet. They are abundant on Silver Creek and in Glen Alpine. Young have been seen as early as July 15 at Lily Lake, Glen Alpine. W. W. P.]

Catherpes mexicanus punctulatus. Dotted Canyon Wren. During May, 1900 Mr. Taylor found a nest of this wren built in a rift of a cliff on the American River north of Fyffe. The nest contained young and an infertile egg.

[Two specimens were shot at Slippery Ford about June 15, 1898 in the Sugar Loaf cliffs. None have been seen higher in the mountains than this point. W. W. P.]

Thryomanes bewicki spilurus. Vigors Wren. Heard occasionally at Fyffe and a specimen shot in the deer brush on June 7, 1899. Its song resembles somewhat that of the thick-billed sparrow.

Troglodytes aedon parkmani. Parkman Wren.

[A pair were shot early in August 1900 in a brushy burned area on the south side of Mt. Tallac at 8000 feet. Others have been seen in Glen Alpine. W. W. P.]

Anorthura hiemalis pacifica. Western Winter Wren. Found not uncommonly along the dark canyon streams. It was seen quite often in Weber canyon at Fyffe and on June 9, 1901 one was heard singing in its own exquisite manner in a gulch near Pacific. July 12, 1898 Mr. Taylor collected a nest and five eggs from the side of a "prospect hole." The location was a dry one for this species to select, but the nest was a beautiful structure of moss, built to suit the shape and size of the cavity. When removed it resembled a miniature ouzel's nest more than anything else. The eggs were partially dried up, which accounts for their being found at this late date.

Certhia familiaris zelotes. Sierra Creeper. Observed from Fyffe upward to the summit. June 8 an adult male and an immature bird were taken at Fyffe, and a nest was found beneath the bark of a dead pine about 20 feet up. It could not be reached, but doubtless contained young at this date. On April 30, 1898 Mr. Taylor found a nest and five eggs at Fyffe, the nest being built in a slit of a pine stub six inches back from the entrance, and almost wholly composed of strips of cedar bark with a few feathers intermingled. I have compared specimens of this race with skins from Sitka with the result that very little, if any, difference appears to exist between the two.

Sitta carolinensis aculeata. Slender-billed Nuthatch. I met this nuthatch at a meadow near the summit on June 14, 1901 when one was observed on a dead stub, but I failed to secure it. Mr. Taylor collected an immature male at Meyer's

Station Aug. 12, 1 01.

[Common above 6000 feet on both sides of the range, at Silver Creek and about Glen Alpine. W. W. P.]

Sitta canadensis. Red-breasted Nuthatch. Heard and seen frequently at Fyffe and specimens taken. [Common in the migrations at Silver Creek. May breed there. W. W. P.]

Sitta pygmæa. Pygmy Nuthatch. [A family of pygmy nuthatches were noted on Silver Creek, 7000 feet in August 1896 and several were taken. It is possible they were migrating. W. W. P.]

Parus inornatus. Plain Titmouse. Recorded by Chas. A. Swisler in the vicinity of Placerville.

Parus gambeli. Mountain Chickadee. A common species from below Fyffe up to the summit and on both slopes of the range. The species nests early, usually selecting dead pine and spruce stubs as nesting sites. June 11, 1898 a nest was found at Fyffe with nine young about to fly; the nest was built in a cavity in the top of a pine stub, about three feet from the ground and was composed of a large quantity of bark strips and animal fur. June 8, 1899 Mr. Carriger found a nest four feet up in a stub, containing seven small young. At the Forni meadow on June 10, 1900 a nest was found built on a joist behind a base-board, the space of 10x7 inches being filled with a mat of hair and fur, in the center of which was a cavity holding eight eggs, slightly incubated. At Fyffe June 6, 1901 a nest with eight grown young was found eight feet up in a burnt stub, while at Slippery Ford on June 10 a nest six feet up in the top of a black oak snag contained young. The real song of this chickadee much resembles that of the golden-crowned sparrow.

Chamæa fasciata henshawi. Pallid Wren-Tit. On June 10, 1899 the familiar song of a wren-tit was heard in the chaparral near the Five-mile House. It probably occurs thence downward in suitable localities.

Psaltriparus minimus californicus. California Bush-Tit. Noted quite often about Fyffe where two nests were found. The first was found on June 12, 1897 and was suspended from a small cedar eight feet up. The seven eggs were far advanced in incubation. June 14, 1898 I found a nest in a manzanita bush, containing six slightly incubated eggs. The nest was something of a curiosity having an entrance on top and another two-thirds of the way down on the opposite side, both being well rounded. The nest was lined warmly with feathers, among which were recognized those of the plumed quail and black-headed grosbeak.

Regulus satrapa olivaceus. Western Golden-crowned Kinglet. Although this kinglet is nominally a bird of the higher zones it undoubtedly breeds at Fyffe, altitude 3,700 feet. On June 8 of the present year Mr. Taylor and I observed adult birds and apparently a brood of young flying about in a thick young spruce growth in the forest. An adult male and a juvenile were collected. Mr. Taylor collected a female at Glen Alpine Sept. 19, 1901. [I have never collected this form in summer at either Silver Creek or Glen Alpine. In 1896, I found it common at Six-mile House. W. W. P.]

Regulus calendula. Ruby-crowned Kinglet. Mr. Taylor took an adult female at Glen Alpine Sept. 19, 1901.

[Distinctly a bird of the Hudsonian zone. Breeds commonly in the forests of alpine hemlock on the slopes of Pyramid Peak and at the head of Glen Alpine. The male has a song of wonderful sweetness and strength. It without doubt breeds in these forests as I have seen the birds with food in their bills flying into a tall hemlock where a nest probably was concealed. W. W. P.]

Polioptila cærulea obscura. Western Gnatcatcher. Observed June 17, 1896 several miles west of Placerville. Also at Fyffe a few days later where a pair were observed flitting about some manzanita bushes.

Myadestes townsendi. Townsend Solitaire. One shot at Fyffe June 20, 1896 by W. H. Osgood. Mr. Beck found a nest built on the ground in the shell of burnt tree near Echo, containing three eggs. Mr. Taylor sent me four specimens taken at Glen Alpine Springs in September and one from Meyer's Station Oct 7, 1901.

Hylocichla ustulata. Russet-backed Thrush. Observed to be fairly common along the wooded streams from Fyffe to Riverton. June 11, 1898 a number were heard singing in the maples bordering a small stream at Fyffe. On June 9, 1901 several were heard in a canyon between Pacific and Riverton.

Hylocichla aonalaschkæ. Dwarf Hermit Thrush. Observed at Placerville by Mr. C. A. Swisler during February, 1901, when a single bird was a visitor to his yard for about two weeks. An occasional winter visitant.

Hylocichla aonalaschkæ sequoiensis. Big Tree Thrush. I first heard the song of this thrush about dusk in the tamarack timber west of Pyramid Peak and found it present in considerable numbers on a meadow near the summit of the stage road. The border of the meadow was thickly grown up with second-growth tamaracks, from the cover of which the thrushes sang with rare melody. I regretted that rapid travel to our day's destination prevented my sitting and listening to the delicious music which seemed to pour from all sides. Mr. Taylor collected an immature specimen of this thrush at Glen Alpine Springs on Sept. 16, 1901. In June, 1896 Mr. Beck collected a nest of the Big Tree thrush above Echo, the nest being built 40 feet up in a pine tree, quite in contrast to the usual nesting site. The nest held four eggs. [Common wherever there is timber, and damp thickets of willow and alder above 6000 feet.—W. W. P.]

Merula migratoria propinqua. Western Robin. One of the noisy and enlivening birds of the entire region, nesting commonly at all altitudes. It is found in every mountain orchard, where the nests are built in apple or other fruit trees. More often pine and cedar saplings are selected as nesting sites, the nests being often placed in the tops of the trees, resting on a horizontal branch next to the trunk. They are composed outwardly of mud and grass and lined with grasses; the usual complement of eggs is four.

Hesperocichla nævia. During the winter of 1900 Mr. Taylor sent me a varied thrush, which he had collected from a flock in the pines. [Observed at Slippery Ford, April 20, 1897. Collected on Silver Creek, Oct. 1, 1896.—W. W. P.]

Sialia mexicana occidentalis. Western Bluebird. Common as far up at least as Fyffe. In 1898 a pair nested in a tall burnt stub at Fyffe, the cavity being near the top of the tree, while a pair of white-headed woodpeckers occupied a hole lower down. The bluebirds have returned to the same stub in subsequent years.

Sialia arctica. Mountain Bluebird. Observed from 5,500 feet upward. Mr. Atkinson found a nest at 9,200 feet altitude on Pyramid Peak, June 10, 1900. The nest was built in a hole of a stub, about 15 feet from the ground, and contained one egg. At Echo on June 14, 1901 a pair were flying about numerous stubs on a meadow, where they were doubtless nesting. Observed commonly about Meyer's Station, where Mr. Taylor collected several in September.

[In June 1896 I collected a male and female and several young of this form a mile or two above the Six-mile House, and a male at Fyffe. This is the lowest altitude at which I have noted them. The arctic bluebird is one of the characteristic species of the great glacier-swept basins,—Rockbound and Desolation Valleys, nesting in the dwarfed tamarack pines, using holes excavated apparently by Williamson sapsucker. W. W. P.]

Passer domesticus. English Sparrow. Recorded at Placerville by Mr. Chas. A. Swisler.

Notes From Alameda, Cal.

American Barn Owl, *Strix pratincola*. The following notes will be of interest in sequel to my account of "Barn Owls in Captivity" in Sept.-Oct. number:—I now attribute the cause of death of the three birds mentioned to prolonged diet of dead chickens, basing my opinion on the effect such diet had upon a cat which had to be killed in consequence. The earliest nesting record in the article referred to was March 24, 1900, 6 eggs, incubation fresh to slight, but this was beaten in 1901 by finding on March 20, 4 eggs in one nest and 5 in another, incubation fresh to begun; and on March 24, 6 eggs in one nest and 7 in another, incubation slight, while much better yet, a nest of young about a week old. These nests are all in Alameda County and were empty later than this on previous years.

Date of nesting of Salt Marsh Song Sparrow, *Melospiza melodia pusillula*. The earliest nesting date of this bird is much earlier, this year at least, than is generally supposed. In recent years I have noted full-fledged young flying about the marshes in April and on March 11 about 10 sets of 3 eggs each were taken on portions of the salt marsh here not subject to overflow from the flood tides. Incubation was fresh to slight and the nests built in the salt weeds or grass, literally upon the ground.

Records of Snowy Owl, *Nyctea nyctea* at Alameda, Cal. My note book contains the following:—December 2, 1896, a fine specimen was shot by Tom Cavanaugh on the "sand-hills" between the marsh and the beach of Bay Farm Island, and he approached within easy range obtaining a "pot" shot. It passed into the possession of Percy Fox who had it mounted and its identity passed upon by the taxidermist and by H. R. Taylor. October 26, 1897, Sherry Fish (deceased) told me he saw on the marsh the "mate" to the Snowy Owl Tom Cavanaugh shot last winter. W. E. Bryant reports three birds taken in Sonoma County by parties unknown to him, about that date. See California Department of "The Osprey" for January 1897 for account.

Western Evening Grosbeaks, *Coccothraustes vespertinus montanus*, were noted twice in Alameda last winter; January 29, 1901, a small flock seen by Percy Fox, feeding upon seeds of pepper tree in town. March 6, 1901, a flock of 11 ? birds flying in direct line, about 40 ft high, at 5:30 p. m.

Song of Golden-crowned Sparrow, *Zonotrichia coronata* in winter is not an uncommon occurrence here. October 24, 1901, at present they are singing incessantly, often singing but two notes, accentuated exactly like the first two of the regular song of three notes:—as Mr. Jos. Grinnell describes it "oh dear" and "oh dear me."

California Jay, *Aphelocoma californica* as a flycatcher. Recently on a vacant lot in town I observed this Jay pursuing a small yellow butterfly and capture it in midair after several maneuvers.

Four varieties of rail in one day on salt marsh near Alameda. During a high tide which flooded the marsh for about two hours on November 7, 1900, I took 10 California Clapper Rail (*Rallus obsoletus*) one *Porzana carolina* which is rarer than the next variety, 10 *Porzana jamaicensis*, and one *Porzana noveboracensis*, ♂, badly moulting. *Rallus virginianus* is a rare bird here.

California Creeper, *Certhia familiaris occidentalis*. January 14, 1899, ♂ taken here on live oak tree, the only bird I ever noted.

Arizona Goldfinch, *Spinus psaltria arizonæ*, ♂ taken here, January 16, 1898, among *S. psaltria*, and one seen at close range, August 20, 1899, in moult, and feeding upon lettuce tops gone to seed.

Late nesting of Black-crowned Night Heron *Nycticorax nycticorax nævius*. In a recent article in this magazine I commented upon late nesting of this species stating that nestlings were heard clamoring well into August. This year I heard some young in a cypress tree on

September 1st and on September 15 heard a nestful making a racket at 1 a. m.

Donald A. Cohen,
Alameda, Cal.

* * *

Getting a Late Supper.

Returning from work on my wheel during the latter part of August, I picked up a tack in my front tire and after many stops to pump up the tire, reached home in a bad frame of mind to find a cold supper. After supper I concluded to repair the puncture which I did, commencing at eight o'clock and finishing half an hour later.

The first thing I did was to turn on the electric light on the front porch, and look for the puncture. While so engaged a shadow kept falling across the wheel and looking up, imagine my surprise to see a Black Phoebe sitting on a branch of a rose-bush about four feet over my head, biting the wings from off a large moth it had captured and eyeing the other insects which were darting about the light. After whetting his bill on the branch he selected another moth which was captured on the second attempt.

The electric light in question is eight candle-power and throws just enough light on the porch to attract a few insects. The phoebe did not seem the least bit alarmed at my presence and continued to catch bugs within two feet of my head, while I watched operations directly under the lamp. Soon I called my mother and brother but the bird paid no attention to the three of us standing near the lamp. I turned the light off for a few minutes and when I turned it on again he immediately started after the bugs. After watching him for half an hour I came to the conclusion that it was bad for birds to eat between meals, so put out the light and retired.

W. B. Judson.
Los Angeles, Cal.

Notes on Say's Phoebe.

On April 28 I took a set of two Say's Phoebe (*Sayornis saya*) on the mesa northwest of Elsinore. This nest was 40 feet down an old mine shaft and was completed before work was resumed. But in spite of frequent passage up and down and occasional blasts, the bird had the eggs half incubated when taken. A report a few days ago is that she has carried the old nest piece by piece up twenty feet and is now setting on two more eggs. I observed this pewee in Pomona May 11 and am satisfied the species breeds on the hills south.

J. Eugene Law.
Pomona, Cal., May 30, 1901.

* * *

QUERY COLUMN

7. We have a dark white-rumped shrike in California in winter that comes from Nevada and north of us. How far south does it go? It is common in the Sacramento Valley in winter, but I do not think I have seen it as far south as Stockton. L. Belding, Stockton, Cal.

8. Has any variation been found in the plumage of *Dryobates nuttalli*, indicating a cross between it and any of the eastern "ladder-backs," and if so have any specimens been secured in this state? J. J. W.

9. What is the range of *Merula m. propinqua* in this state in the months of August, September and October? Owing to their complete absence from this locality and also at Independence Lake during this period, annually, I am led to believe that they are found in numbers in some other locality during this time. J. J. W.

10. Has any detailed study been made of the song and habits of *Harporhynchus redivivus*? If so, by whom and can their observations be purchased? Jno. J. Williams, Applegate, Placer Co., Cal.

The California Least Vireo.

BY JOSEPH GRINNELL.

As compared with skins from Arizona and southern Lower California, a series of Least Vireos from California (Tulare, Pasadena and Pomona) agree in begin grayer dorsally and whiter beneath. The rump and sides are not distinctly greenish and there is no pectoral buffy suffusion. These differences seem to me sufficient to warrant recognition. The California form may be called

Vireo pusillus * albatus.

TYPE—No 961, Coll. J. G.; ♂ ad.; Pasadena, California; April 25, 1896; collected by J. Grinnell.

DESCRIPTION—Upper surface almost uniformly smoke-gray; top of head faintly hair-brown, and back with a scarcely perceptible olive-buff tint. Lower parts continuously pure white; sides faintly washed with olive-buff. Greater wing-coverts distinctly white tipped; median coverts gray-tipped; wings and tail edged with whitish. Lores and eye ring whitish. Length 127 mm; extent 178; wing 55; tail 56.

* Among a series of 40 specimens examined, I can find no evidences of intergradation between *Vireo pusillus* and *V. belli*.

* * * * *

Notes on San Luis Obispo County Birds.

Botaurus lentiginosus. American Bittern. While camping at Morro in July and August 1900, I several times saw birds which I took to be of this species, but as no specimens were secured I was not positive. However, in November of the same year I took several, thus making the record positive. The birds were fairly common and spent most of their time in the tules.

Nycticorax n. nævius. Black-crowned Night Heron. On April 13, 1897 I saw two of these birds at Paso Robles, one of which I collected. It was a male in spring plumage and quite fat. This is the only time I have met this heron in the Upper Salinas Valley.

Rissa tridactyla pollicaris. Pacific Kittiwake. March 22, 1899, a bird was brought to me alive, which had been captured in a plowed field six miles east of Paso Robles and probably 25 miles from the ocean. I kept it in the zoological laboratory of the High School for several days, where it ate frogs, clams and other provender. Finally it was taken away and I kept it at home for about ten days when it pined away and died April 6. I skinned the specimen and compared it with another at Stanford University and concluded it was *Rissa t. pollicaris*, and later it was positively identified by Mr. Joseph Grinnell. The bird was an immature female and was badly infested with mallophaga. Mr. Grinnell informs me that this is one of the few records of the Pacific Kittiwake for California.

CHAS. S. THOMPSON.

Stanford University, Cal.

* * *

Recent Records of the Fulvous Tree Duck For Southern California.

I AM indebted to Rev. F. Reiser for a fine male specimen of *Dendrocygna fulva* taken under very unusual conditions. While hunting rabbits in the Big Santa Anita wash Sept 16, 1901 he made out "a strange animal" moving rapidly among the bowlders in the dryest part of the wash miles from water. It proved to be a Fulvous Tree Duck; the bird was much emaciated and had no doubt, from weakness, settled there from a passing flock.

Mr. J. S. Torrance reports a flock of twenty about the grounds of the Chico Bolsa Gun Club near Newport, Sept. 25. October 10 a specimen in fine plumage was shot in the San Gabriel river bottom near Whittier. This bird also was much emaciated.

FRANK S. DAGGETT.

Pasadena, Cal.

ACTION OF THE A. O. U. ON MEMBERSHIP.

[Special dispatch to THE CONDOR.]

"NEW YORK, N. Y., Nov. 12, 1901.

"Grinnell, Beal, Bishop, O. Bangs and T. S. Palmer elected Fellows.

WALTER K. FISHER."

The American Ornithologists' Union held its business meeting in New York Monday evening, Nov. 11 and as shown by the above advice, has added five additional names to its list of Fellows. It should be remembered that the former active membership of the Union is now designated as Fellows. It is expected that a new class of 50 Active Members to be elected from the present associate membership will be created, but no action had evidently been taken up to the date of the above telegram. Ornithologists will appreciate the fact that so substantial an addition has been made to the Fellowship of the Union, while Californians warmly hail the recognition shown Mr. Joseph Grinnell by his election.

* * * * *

GENERAL NEWS NOTES.

Walter K. Fisher, Associate Editor of THE CONDOR is visiting his home in Washington, D. C., where he will remain until Jan. 1. It is not unlikely that Mr. Fisher will grasp many Eastern ideas in magazine publishing, which will later reflect improvements in THE CONDOR.

A new land tortoise is described in the October number of *Novitates Zoologicae* by Hon. Walter Rothschild as *Testudo becki* in honor of its collector, Mr. Rollo H. Beck. Its habitat is given as Cape Berkeley, the northern point of Albemarle Island, Galapagos Archipelago. The tortoise was taken on the recent Beck-Adams expedition to the islands.

Mr. Otto Holstein of Cline, Texas records a curiously located wren's nest. It was built in the hook of a semaphore signal placed there for the purpose of hanging a semaphore light at night. The distance from the ground was 40 feet and the semaphore arms were used on an average of fifteen times a day, jarring the pole each time. The nest held one egg when found but had to be removed to accommodate the lamp.

Willis H. Jackson of Pescadero, Cal., records a nest of the Barn Swallow on Aug. 21 containing three eggs, the birds having previously reared two broods for the season. Also on Sept. 23 he discovered a nest of the California Partridge containing ten eggs on which the female bird was setting. The eggs were partially dried up and the parent bird must have patiently set on them from the time they were laid.

W. W. Price will conduct his usual winter excursion of zoologists this year, the chosen route being through the canyons of the Colorado River from Needles, Cal., to Yuma, Ariz., a distance of 350 miles. The party will leave Needles about Dec. 20 and some fifteen days will be consumed in making the trip, which will doubtless prove most interesting under Mr. Price's direction.

The Nineteenth Congress of the American Ornithologists' Union convened at the American Museum of Natural History in New York on November 12 for a three days session. Although the programme has not reached the Coast up to the present writing, an array of able papers and discussions is assured, such as makes each annual meeting of the Union memorable to those who attend. The interesting business feature of the Congress will be the election of several new Fellows and the inauguration of the new Active Membership, consisting of 50 ornithologists from the ranks of the present associate list. THE CONDOR hopes to receive advice of the result by wire, and to announce it in the present issue.

As we go to press another Galapagos expedition is being outfitted under the supervision of Rollo H. Beck, who will be the ornithologist in charge. The schooner *Mary Sachs* has been chartered and the party will sail about Nov. 15. It is expected that all of the islands will be visited and a special study will be made of the tortoise question. The summit of Narborough Island will be carefully explored, it being a region that has not been worked in recent years. It is also the intention of Mr. Beck to collect as far as practicable specimens of all the breeding land birds with their nests. A gasoline launch will aid materially in visiting many of the islands which adverse currents and winds sometime make it difficult to reach

Individual Aid in the Welfare of the Club.

The opening editorial in the September CONDOR deals fittingly with the many disadvantages under which the Cooper Club labors owing to the Club's membership being scattered over so much territory, but "which may in the future be largely remedied" etc. The article is well written and forms a rough summary of the general conditions incident to the management of the Cooper Club of today. It also shows that out of a total active membership of 170 or more, a small minority practically constitutes the entire working force and considering this fact the growth of the Club in the past eight years from four members to its present size, reflects greatly on the minority. Besides this though, a heavy percentage of the original reading matter found in THE CONDOR comes from the pens of this same minority gratuitously. This latter is not mentioned in the editorial quoted, but any one can assure himself of the truth of it by looking over the past numbers of THE CONDOR.

So much for the enviable showing made by those members constituting the minority. Now about the remaining members, composing the majority, not that I care to make invidious comparisons, but because due consideration of the subject should prove of value to any member. All of us are interested to a greater or less degree in the study of birds, although some are undoubtedly too busy in other paths of life to do much more than welcome the advent of THE CONDOR on alternate months. Some few are beginners, and the insecurity of their foothold in the study prevents them at present from taking an active part in the work of the Club.

A great many keep records or casual notes of one kind or another on the bird life around them, and some elaborate theirs no doubt, into series of notes, complete as far as possible on some more note-worthy species or groups of species. In this way in the course of a year or so, considerable amount of material is jotted down, most of it of value to the writer or he would not bother about it. The greater part of it consists of little facts or incidents pertinent to bird history and while of value to the individual, it would prove equally as interesting to the Club-at-large. Probably a large share of these notes or records are written and *kept* by Club members who, though too far removed from headquarters to take an active part in the transaction of routine business, are still, in every sense of the word, active field workers. Many of them live in the more remote corners of the state and for that very reason what ornithological work they do is possessed of a greater value, for they are resident observers in localities where other members can at the best pay only strays visits of a few weeks duration.

But for all that we rarely hear from them either in the regular Club meetings or through the pages of THE CONDOR and the question is where does all that good material go to? In conclusion, the acknowledged object of the Club is the highest advancement of the science of ornithology in California, and it should also be the aim of every one of its members to aid as far as possible in the mutual advancement of all the members, rather than the self-advancement of individual members. JOHN J. WILLIAMS.

Applegate, Cal.

* * *

COMMUNICATIONS.

RECONNOISSANCES; A REPLY.

Editors THE CONDOR:—

The co-authors of "A Summer Reconnoissance in the West," Wilson Bulletin No. 33, seem to take exception to my "destructive" review and criticism which appeared in THE CONDOR recently.

If they had made it as plain in Bulletin No 33 as they do in their replies, that the list was not intended to be of any general scientific value, the paper would not have called for criticism from anyone If a crime has been committed it was in taking the statements seriously, but knowing of Mr. Jones' previous careful and conscientious work about Oberlin I have no apologies to make for supposing this was intended to be equally accurate.

Certainly if a western ornithologist should visit Oberlin for a week or ten days and record two to four birds that do not occur there at all, and a number of others as rare as the Carolina Paroquet or the Short-billed Marsh Wren, he would expect to be called upon by the whole local club for explanation. In this case I was delegated to do it.

Admitting that the Reconnoissance was not intended to have any special value, why should exceptions be taken when inaccuracies are pointed out? We are pleased to note that another trip is being planned "with scientific settings," which will insure accuracy and therefore be welcome by all who are wrestling with the intricacies of geographical distribution in California. FRANK S. DAGGETT.

Pasadena, Cal.

ADVICE FOR OOLOGISTS.

Editor CONDOR: Many a time when blowing a small egg with a pipe I have nicked it when introducing the pipe through the small blowhole. But I don't do that any more. Instead of using a blowpipe I now pull a small grass stem and insert the soft white end of it into the egg. This delicate end can be bent in any direction, and eggs can be blown with smaller holes than with a glass pipe. Everyone of these small grass stems is a hollow tube, and some of them can be found that are no larger in diameter than a needle. They are gathered just as you want to use them, and your eggs can be blown as soon as taken. Now don't go to work and try to introduce the stiff green end of the grass stem, but put the part in the egg that is soft and white near the joint.

Respectfully,
R. P. SHARPLES,
Westchester, Pa.

* * *

PUBLICATIONS REVIEWED.

NORTH AMERICAN FAUNA NO. 21 consists of two papers prepared by Wilfred H. Osgood entitled "Natural History of the Queen Charlotte Islands, British Columbia," and "Natural History of the Cook Inlet Region, Alaska." These are based in the main on explorations made during the summer of 1900 by the author, with Edmund Heller as assistant, under the direction of the Biological Survey. Thirteen pages of the first paper are occupied by a list of the birds known to inhabit the Queen Charlotte Islands. These 96 species are variously annotated, but chiefly in a technical vein. Two insular forms are described as new, *Dryobates picoideus*, related to the Harris Woodpecker, and *Cyanocitta stelleri carlottæ*, resembling the Steller Jay. A dark northwest-coast form of the Saw-whet Owl is also distinguished as *Nyctala acadica scotæa*. The author has resuscitated an ancient synonym of Gmelin's *Picus ruber* for the northwest coast race of the Red-breasted Sapsucker, calling it *Sphyrapicus ruber flaviventris* (Vieillot). The reasons for so doing are not clearly explained but the implication is, apparently, that Gmelin's *ruber* should be restricted to the form occuping the arid Boreal Zone of the interior and southern California. Without discussing the matter at length, it has seemed to us that this is a most unwarranted procedure. Although the habitat of *Picus ruber* is (erroneously?) stated to be "Cayenne," it was probably based on Captain Cook's description, the same as *Picus flaviventris*. Either *ruber* should be rejected altogether, or it should apply, as heretofore understood, to the northwest-coast form.

In the second paper, ten pages are devoted to a list of the birds of the Cook Inlet Region. Of the seventy-seven species enumerated, the known ranges of several are notably extended. The Dusky Horned Owl, Rufous Hummer and Rocky Mountain Creeper probably find their westernmost stations in this region. The unexpected discovery of the White-tailed Ptarmigan so far northwest is also an evidence of energetic field-work, in a country where the collector does not always meet with "one continual round of pleasure!"—J. GRINNELL.

BULLETIN NO. 15 OF THE U. S. DEPARTMENT OF AGRICULTURE, DIVISION OF BIOLOGICAL SURVEY, prepared by Dr. Sylvester D. Judd, treats of "The Relation of Sparrows to Agriculture." Aside from its bearing along economic lines, this paper obviously adds much to our knowledge of the general habits and ecology of sparrows. The account of observations made in the field is very entertaining, and evinces an unusually acute perception on the part of the observer. The experiments carried on with caged birds are also quite suggestive. It was found that so-called "protectively colored" insects, even though presented to a song sparrow, partly covered by earth of the same hues, were discovered and eaten by the bird with remarkable promptness; and that some "warningly colored" insects, provided with odors and taste very disgusting to a person were as greedily devoured; but others, after the first taste, were subsequently avoided. The birds showed an extremely acute power of discrimination, for they carefully avoided stinging insects; though stingless species of similar appearance, and which are usually cited as examples of "protective mimicry," were at once devoured. This is rather discouraging testimony for the theorists. Yet there are many enemies of insects besides birds, and these may be oftener baffled by the color artifices than are the keen-sighted sparrows.

The conclusions reached in regard to the economic value of sparrows, is very favorable. In fact they are said to be the most beneficial of any groups of birds so far studied. This statement does not however include the English sparrow, which is declared to be unqualifiedly obnoxious wherever it occurs.—J. G.

DIGEST OF GAME LAWS FOR 1901. By T. S. Palmer and H. W. Olds.—It is stated that "the object of this report is to present in convenient form the provisions of the laws now in force, including the amendments enacted during the present year" Some 200 changes in the game laws of the various states has necessitated a complete revision of former bulletins, so that the present Bulletin brings the game laws of each state and territory into convenient form. Every detail has been gone into with great system and tables covering almost every phase of the open and close seasons of each species of game have been prepared, with the result that the public has at its command a compendium of the game laws such as could result from scarcely any other source than a government bureau with its thorough and systematic work. The bulletin is quite as much of a necessity to ornithologists interested in bird protection as to sportsmen —C. B.

BIRDS OF MADISON COUNTY, N. Y. By George C. Embody (Bulletin of the Dept. of Geology and Natural History, Colgate University). Hamilton, N. Y., 1901.

This is one of the neatest local lists it has been our pleasure to receive, being, as its title indicates, a list of the birds of Madison County, Central New York. 192 species and a hypothetical list of 16 species are recorded, with brief notes concerning abundance, date of arrival and nesting data. An excellent half tone of a bluebird at its nesting hole adorns the list as frontispiece. Aside from the scientific merit of the list, it may well be used as an ideal by those workers who appreciate system, typographical neatness and exactness.—C. B.

PROCEEDINGS OF THE NEBRASKA ORNITHOLOGISTS' UNION. This is a compact volume of 100 pages with ten excellent illustrations, setting forth the proceedings of the second annual meeting of the Union at Omaha on Jan. 12, 1901. The minutes, constitution of the Union and a list of members is followed by 21 papers on various scientific subjects relating to birds, by 17 authors. Many of the papers are valuable contributions to the science of ornithology, two notable titles being "Internal Parasites of Nebraska Birds" by Prof. Henry B. Ward and "Migration Records and Nebraska Records" by Robt. H. Wolcott. The present notice renders it impossible to consider any of the articles in detail, but the report is one which every active ornithologist will wish to own.

The present roster of membership shows 4 honorary, 63 active and 36 associate members. The officers of the Union for the present year are I. S. Trostler, president; Caroline Stringer, vice-president; E. H. Barbour, recording secretary; R. H. Wolcott, corresponding secretary. It may be remarked that the present Proceedings are a substantial improvement over the first annual report, thus indicating a healthy growth of this energetic state club. The Nebraska Ornithologists' Union has happily solved the question of publishing its own official organ, and instead of attempting a monthly or quarterly journal, which a moderate membership renders incapable of support, it combines its transactions in a single annual report, substantial in text and lasting in value.—C. B.

* * *

Official Minutes Southern Division.

SEPTEMBER.

The regular meeting of the Division was held Sept. 30 at the residence of Roth Reynolds in Los Angeles, President Daggett presiding. Nine members were present. The final draft of the new constitution as recommended by the Northern Division was read and discussed, and after minor changes the same was adopted. Messrs. Alphonse and Antonin Jay were elected to active membership. A committee of three, Messrs. Swarth, Leland and Robertson, was appointed to make all arrangements necessary for the outing meeting to be held during the latter part of October. The following papers were read: Nesting of the Prairie Falcon by O. W. Howard; A Further Plea for the Collection and Use of Facts by Roth Reynolds and An Answer and Criticism of the latter paper by H. S. Swarth. An interesting discussion followed after which the meeting adjourned.

HOWARD ROBERTSON, Division Secretary.

* * *

Official Minutes of Northern Division.

The regular bi-monthly meeting was held Nov. 2, 1901 at the residence of C. W. Randall, Piedmont, Cal. President Grinnell presided with seventeen members and six visitors present. The new constitution was given its final reading and was adopted to take immediate effect. The following persons were proposed for active membership: Dr. David Starr Jordan, Stanford; Dr. Chas. H. Gilbert, Palo Alto; Miss Sophie Englehardt, Oakland; Mrs. F. E. Dorsey, Stanford; S. A. Barrett, F. W. Bancroft and Luther J. Goldman of Berkeley.

At Mr. Emerson's suggestion a Committee of Five was appointed to formulate arrangements for the tenth anniversary of the Club's inauguration in 1903. The following were named as committeemen: W. Otto Emerson, Chairman; J. O. Snyder, J. Eugène Law, Frank S. Daggett and C. Barlow. Nominations for officers for 1902 resulted as follows: For president, Joseph Grinnell; for senior vice-president, R. S. Wheeler, D. A. Cohen, Chas. R. Keyes and H. W. Carriger; for junior vice-president, E. H. Skinner and W. K. Fisher; for secretary, C. Barlow; for treasurer-business manager, C. Barlow.

The following programme was rendered: Address by Wm. L. Finley on The Bird Rocks of the Oregon Coast. Mr. Finley exhibited a large series of especially excellent photographs, the work of Herman T. Bohlman of Portland, who accompanied him on the trip. John M. Willard spoke on Lassen County Birds and a paper by O. W. Howard was read entitled Experiences with the Prairie Falcon. Adjourned to meet at Santa Clara Jan 11, 1902.

C. BARLOW,
Division Secretary.

* * *

NOTICE TO NORTHERN DIVISION MEMBERS.

The Annual Meeting of the Division instead of occurring on the usual first Saturday evening in January, has been set for the second Saturday, January 11, 1902. The meeting will be held at Santa Clara, and a programme of unusual interest is being arranged. Detailed reports of the business office of the Club will be presented and a banquet will be held after the meeting. Every member within reach is urged to be present if possible.

THE CONDOR.

Bulletin of the

COOPER ORNITHOLOGICAL CLUB

OF CALIFORNIA.

Published bi-monthly at Santa Clara, Cal., in the interests and as Official Organ of the Club.

CHESTER BARLOW, - - Santa Clara, Cal.,
Editor and Business Manager.
WALTER K. FISHER, Stanford University Cal.
HOWARD ROBERTSON, Box 55, Sta. A., Los Angeles.
Associates.

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Exchanges should be sent to the Editor-in-Chief.

Entered at the Santa Clara Post-office as second class matter.

This issue of The Condor was mailed Nov. 16.

EDITORIAL

Retrospective and Prospective With the present number THE CONDOR closes its third volume, with which circumstance is connected a variety of reflections, interesting at least to those who have had the welfare of the magazine at heart. We believe that we violate no breach of propriety when we take the ornithological fraternity into our confidence, and discuss with them the future policy of the magazine.

THE CONDOR was projected by the Cooper Ornithological Club and its members three years ago, and its contents have since been made up largely from the writings of these individuals. Yet we feel that the magazine has not been in a narrow sense merely the bulletin of a Club, but rather the representative bird magazine which its editors have endeavored to make it. We have long since perceived that its scope of work and influence were not bounded by the limits of its home state, and many of the magazine's eastern supporters have commended its course in excluding other than strictly western material.

It has been the intention to treat all current ornithological happenings, eastern as well as western, and to participate in any and all discussions which might be of interest to the fraternity. The large body of western ornithologists in and out of the Cooper Ornithological Club form a very considerable percentage of the working force of American ornithologists, and we believe our eastern friends value THE CONDOR as a medium devoted to the presentation of western work.

It may be a satisfaction to the friends of THE CONDOR to learn that, owing to the present large membership of the Cooper Ornithological Club, the magazine is self-supporting from the income so received, *exclusive* of all outside receipts. Its permanence therefore is established two-fold, and it is hoped that the fourth volume may mark the production of a magazine better in many respects than has been the volume just completed.

To those who have not known THE CONDOR intimately, we would ask a perusal of the 200 pages of text constituting Volume III. To its old friends we would merely mention a few contemplated improvements for the coming volume. It is proposed to use permanently 100-lb. coated paper which will lend an improved typographical effect and also improve the illustrations, while an artistic new cover will help in making THE CONDOR attractive outwardly.

With the closing of Volume III the artist lays aside his peculiarly innocent camera which has produced sundry "snapshots at prominent ornithologists" during the year. While most ornithologists are seriously earnest in their work and sometimes give the impression that jocoseness is foreign to their make-up, we believe that none can have objected seriously to the series of cartoons, good-natured in their intent, and that the feature as a whole has been favorably received. Further comment on the passing of Volume III seems unnecessary, other than to extend thanks for the generous patronage afforded, and to all friends who have assisted in the betterment of the magazine.

The new constitution of the Club which is now in effect, prescribes that the annual dues of $2, shall accompany each application for membership and it will be well for members to observe this requirement in soliciting new members. This clause was considered well by both divisions of the Club and subsequently adopted. It is intended as a guarantee of good faith on the part of the member-elect, and does away with efforts to collect dues subsequent to election. Too often through the absence of new members from home, unintentional neglect and other causes, the business office is forced to assume the duties of a collection agency in securing the first year's dues. This is radically wrong; each member should spare the officers of the Club any unwarranted demands upon their time, for the rapid increase in volume of the business affairs of the Club leaves absolutely no time to devote to work which is and should be unnecessary. For these and other reasons it has been deemed proper that the first year's dues accompany each application for active membership. Members should act accordingly and may secure the proper form of application for membership from the business manager.

We commend to Club members the remarks of Mr. John J. Williams on another page with reference to individual work. Were each member to analyze the purposes of the Club and feel the responsibility of individual duty as has Mr. Williams, the Club would at once greatly increase its scope of usefulness.

We extend thanks to *Camera Craft* for the use of the two striking half-tones in this issue, portraying gulls on the wing. Of the difficult subjects with which the ornithological artist wrestles, none is perhaps more difficult than to secure detail in flying birds. The photographic magazines now allot considerable space to ornithological subjects and we recommend to our readers *Camera Craft*, a high-class photographic magazine published at 220 Sutter St., San Francisco. It is an acknowledged leader in photographic journalism and is well worth the subscription price of $1.50 per year.

In the election of Drs. David Starr Jordan and Charles H. Gilbert of Stanford University to active membership, the Cooper Ornithological Club adds to its roster two of the leading zoologists of the Coast. Its membership had previously included several leaders in the science from the two great universities of the State,—all of which evinces the great interest which centers about the Club and its scope of work.

Club members are requested to consult freely the directory of members published in this issue, which has been carefully brought down to date together with addresses. Each member should learn the value of co-operation and should correspond or personally become acquainted with those members residing nearest to him.

It is expected that the index for Volume III will be mailed with our January issue as usual. Mr. R. C. McGregor, whose valued offices as "official indexer" for the two preceding volumes have spared the editors that labor, is engaged on U. S. S. *Pathfinder*, and should nothing prevent will complete the index in good season for mailing in January.

The authors of the list of Sierra Nevada birds in the present issue desire to announce that it was originally the intention to publish the list as a *Pacific Coast Avifauna*. This was later reconsidered, and the list, although personally published, becomes a part of THE CONDOR, in addition to which appears the regular 24 pages of the magazine.

* * *

LIVE WOODPECKERS WANTED.

The Commissioner of Agriculture and Forestry of the Territory of Hawaii is desirous of securing a supply of live woodpeckers and writes Mr. W. Otto Emerson as follows: "I am desirous of obtaining a number of the downy woodpeckers to be introduced here on the different islands. Will you kindly let me know where I can obtain say 100 or 200 and the probable cost?" Those who can assist in the matter are urged to communicate with W. Otto Emerson, Haywards, Cal.

PUBLICATIONS RECEIVED.

CHAPMAN, FRANK M., Descriptions of Six Apparently New Birds from Peru. (Ext. Bull. Am. Mus. Nat. Hist. XIV, Art. XIX, pp. 225-8).

HOWELL, ARTHUR H., Revision of the Skunks of the Genus Chincha (N. A. Fauna No. 20.)

JUDD, SYLVESTER D., The Relation of Sparrows to Agriculture. (Bulletin No. 15, Biological Survey, pp. 1-96).

OSGOOD, WILFRED H., Natural History of the Queen Charlotte Islands, British Columbia; Natural History of the Cook Inlet Region, Alaska. (North American Fauna No 21. Issued Sept. 26, 1901.)

PALMER, T. S. and H. W. Olds. Digest of Game Laws for 1901. (Bull. No. 16 U. S. Dept. of Agriculture).

SHUFELDT, DR. R. W., On the Osteology of the Pigeons (Columbae). (Reprint from Journ. Morph. XVII, No. 3, 1901)

American Ornithology, I, Nos. 9, 10, 11. Sept., Oct., Nov. '01.

Auk, The XVIII, No. 4, Oct. 1901.

Birds & Nature, X, Nos. 2, 3, Sept. Oct. 1901.

Bird-Lore, III, No. 5, Sept.-Oct. 1901.

Maine Sportsman, IX, No. 95 Sept.-Oct. 1901.

Nature Study, II, Nos. 5, 6, Oct. Nov. 1901.

North American Fauna, Nos. 20 and 21.

Notes on Rhode Island Ornithology, II, No. 4, Oct. 1901.

Novitates Zoologicae, VIII, Nos. 1 and 3.

Oologist, The, XVIII, No. 10, Oct. 1901.

Osprey, The, V, Nos. 7, 8. July, Aug. 1901.

Our Animal Friends, XXIX, Nos. 2, 3, Oct. Nov. 1901.

Our Dumb Animals, XXXIV, No. 4, Sept. 1901.

Plant World, IV, Nos. 8, 9. Aug. Sept. 1901.

Popular Science, XXXV, Nos. 10, 11, Oct. Nov. 1901.

Proceedings of the Nebraska Ornithologists' Union; Second Annual Meeting, Jan. 12, 1901. (Published Oct. 1901).

Recreation, XV, Nos. 3, 4, Sept, Oct. 1901

West American Scientist, XII, Nos. 4, 5. Sept. Oct. 1901.

Wilson Bulletin, No. 36, Aug. 31, 1901.

* * *

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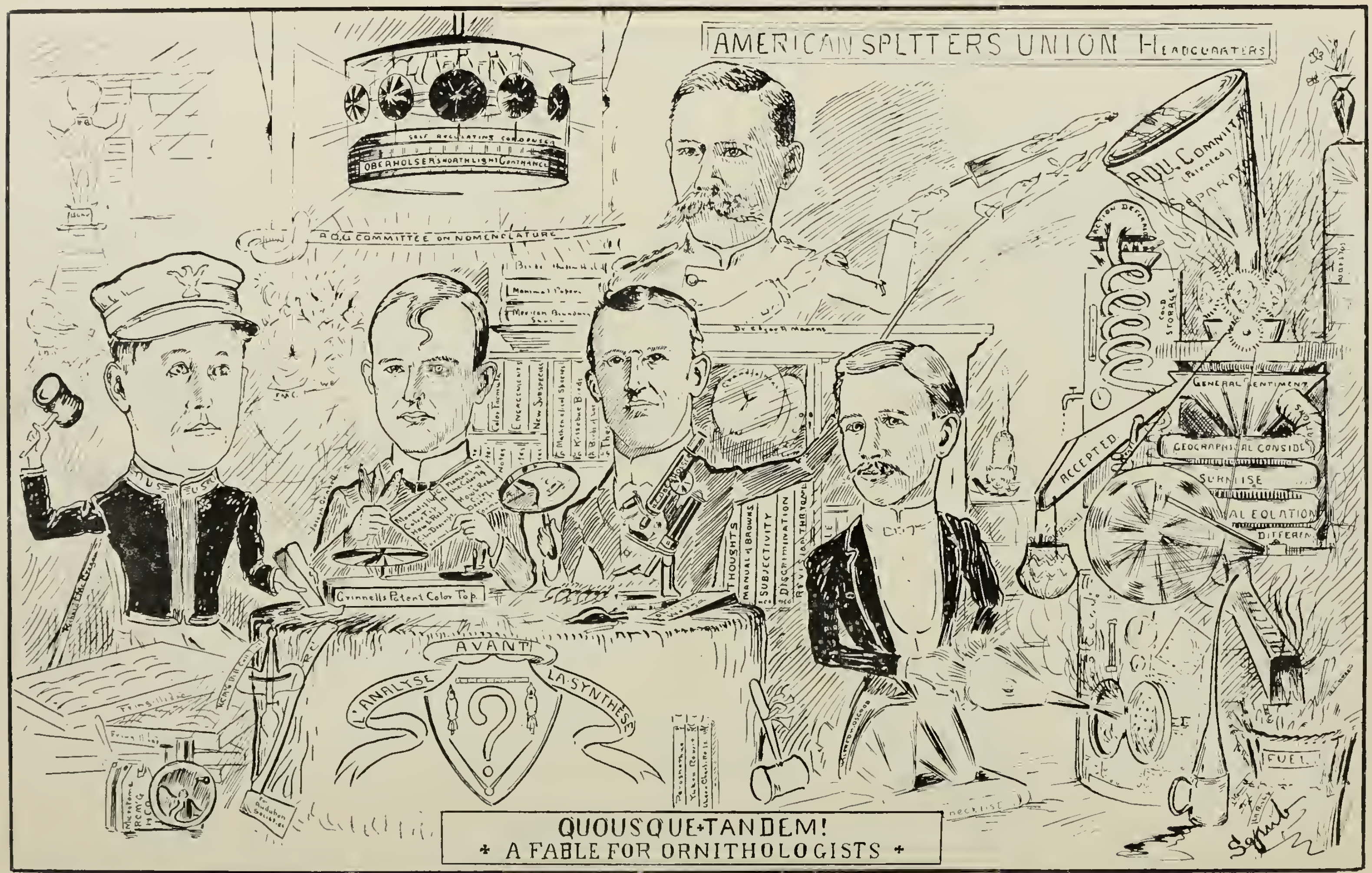

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Bird-Lore for 1902.

ERNEST SETON-THOMPSON, who has written an illustrated article on "The Recognition Marks on Birds," for December *Bird-Lore*, will write, in 1902, on "How to Keep a Journal;" William Brewster will describe the bird voices of New England swamps and marshes; F. A. Lucas will write, with numerous illustrations, of "The Weapons of Birds;" D. G. Elliot and Capt. C. A. Curtis, U. S. A., will contribute Recollections of Elliott Coues; and Frank M. Chapman will present a series of six fully illustrated papers on the families of Passerine birds. There will also be a series of articles on "Bird Clubs in America," and other important illustrated papers by Richard Kearton, Dr. J. Dwight Jr., Dr. T. S. Roberts, A. Radclyffe Dugmore and others.

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PUBLISHER OF ——

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BULLETIN OF THE

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Edited by - - - CHESTER BARLOW.

Associated with { HENRY REED TAYLOR
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Your subscription to the CONDOR expires with the ....NOV........1899......issue, and we trust you have found the volume in every way worthy of your support. The CONDOR has passed through the year with a full measure of success attending its publication, and the results lead its editors and the Club to feel that there is abundant room in the scientific publishing field for such a magazine, the sole objects of which are to promote Pacific Coast ornithology and present western bird news to the public.

No other ornithological journal has ever attempted such a restricted field, and the quantity as well as quality of papers presented in the past year, amply demonstrate the activity of the Club membership. The CONDOR presented during 1899 the first comprehensive and accurate accounts of the nesting of the Fulvous Tree

Duck, Olive and other little-known warblers of Arizona, Olivaceous, Sulphur-bellied and Buff-breasted Flycatchers and others, beside numerous popular articles, lists, biographical sketches and portraits of Coast workers, communications and a wealth of general news notes.

Volume I contained 120 pages of text, although it was advertised to contain but 16 pages per issue. It has been mailed promptly on the 15th of each publishing month, a feature which we believe subscribers appreciate, and which will be continued.

A word as to the future! The Cooper Ornithological Club consists of between 80 and 90 active members, embracing all the prominent workers of California, all of whom write for the CONDOR, thus covering the state most completely. In addition, we expect to give space to other Pacific Coast states from time to time.

Most of the new discoveries in ornithology and oology come from the Pacific Coast and largely from California. With a membership extending from the Pacific Ocean on the west to the snow-clad Sierras on the east, almost all the new observations are recorded by the Club, and are given to the public through the CONDOR.

Future articles, written by live field-workers, will embrace collecting trips to California's islands, the Sierra Nevada Mts., Arizona and Alaska and if you would keep informed of the progress of events ornithological, we invite your prompt renewal on the enclosed blank. The CONDOR offers no premiums but will, as in the past, give full value to its subscribers.

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THE EDITORS.

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